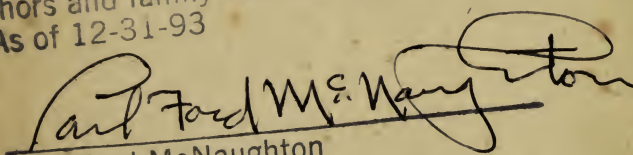




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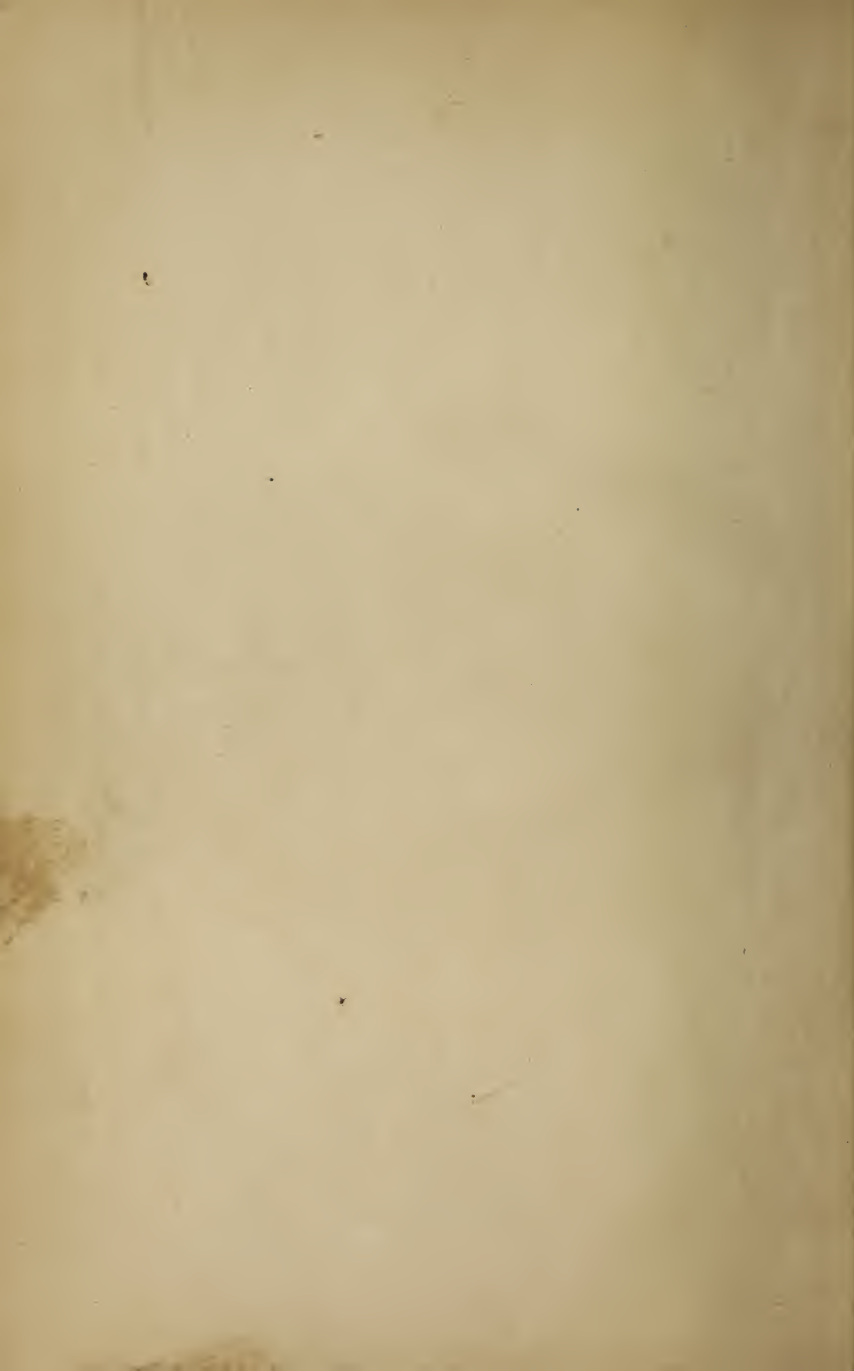
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BY J. H. BATTY.

HOW TO HUNT AND TRAP,

CONTAINING FULL INSTRUCTIONS FOR HUNTING THE

BUFFALO, ELK, MOOSE, DEER, ANTELOPE,

BEAR, FOX, GROUSE, QUAIL, GEESE, DUCKS, WOODCOCK,
SNIPE, ETC., ETC.

Also,

THE LOCALITIES WHERE GAME ABOUNDS.

IN TRAPPING:

Tells you all about Steel Traps; How to Make Home-made Traps,
And how to Trap the Bear, Wolf, Wolverine, Fox, Lynx, Badger,
Otter, Beaver, Fisher, Marten, Mink, etc.; Birds of Prey;
Poisoning Carnivorous Animals; With full Directions
for Preparing Pelts for Market, etc., etc.

BY J. H. BATTY,

Hunter and Taxidermist.

FULLY ILLUSTRATED.

NEW YORK:
ALBERT COGSWELL, PUBLISHER,
24 BOND STREET.

1878.

DEDICATED

TO

DR. F. V. HAYDEN,

WHOSE LOVE FOR NATURE'S STUDIES,

AND

WHOSE PARTICIPATION IN MANY OF THE SCENES

HEREIN DESCRIBED

WILL MAKE HIM, I TRUST, A GENTLE CRITIC.

THE AUTHOR.

P R E F A C E .

TO MAKE record of my experience in form of a book, was a thing I had not thought of when I first went, heart and soul, into hunting and trapping; but friends have urged me to give my experience, and the pleasure in so doing will compensate, if nothing else results.

My boyhood was spent in Massachusetts, in the valley of the old Connecticut, where for many years my shotgun made havoc among the small game, and my traps cleared many streams of muskrats and mink.

Later, I hunted West, and at last found a camp home in the glorious Rocky Mountains, whose wild scenery and abundant game made me forget for a time that civilization had any claim upon me.

Trappers and miners, Indians and half-breeds, have all been my fellow-comrades, and in "roughing it" with each I have lived and gloried in all the varied experiences of a hunter's and trapper's life. Forest shades, rippling streams and bounding game, bring recreation and take us from—

"The vain low strife that makes men mad,
The tug for wealth and power."

A quaint fellow says: "I go to the woods after game, but if the game is not there, I get nuts; if there are no nuts, I gather leaves and flowers; if all fail, I get health." So, whatever the object, Nature at least is benefited, and the cares of life are often lessened.

J. H. B.

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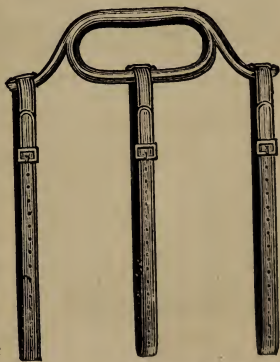
HOW TO HUNT AND TRAP.

CHAPTER I.

OUTFITTING.

Modern invention has given us comforts, and even luxuries, for the camp, that cannot fail to satisfy the most fastidious tastes. Complete stoves, easy lounges, hammocks that would make one lazy to look at, portable boats, and light canoes in endless variety, and a thousand and one things that cannot be dwelt on here.

Yet, while comfort should not be ignored, it is not advisable to take one article that can be dispensed with. Two pair of long, heavy blankets or a large cow buffalo robe, afford much comfort, and Thompson's Blanket Straps, as seen in the illustration, are the most convenient to carry them with, when on the



Thompson's Blanket Straps.

march. A poncho and rubber blanket, as a wrapper for bedding, should always be taken; and each individual of a party should carry one or more sections of a dog or shelter tent, to use in rainy

weather. The clothing required is a buckskin or caribou suit, heavy flannels, woolen socks, a large, light colored felt hat, and moccasins, or larigans.

When traveling over mountainous country, and jumping from rock to rock, the hunter should wear leather shoes thickly studded with iron, instead of steel nails, as a safeguard against slipping.



Thompson's Shoe Pack.

The "Thompson Shoe Packs," seen in the illustration, are the best for rough traveling. They lace up easily and snugly around the ankle, and give an elasticity to the hunter's step.

The larigans or oil-tanned shoe packs are best for winter wear, and snow shoes can be worn with them.



Shoe Pack.

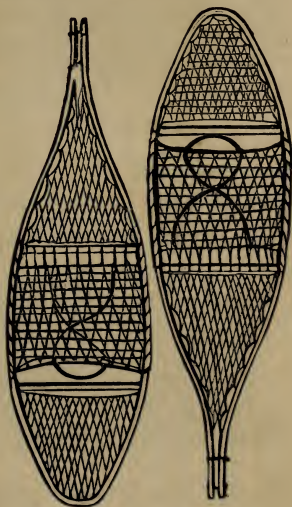
There are several makers, but "Good's" are less easily penetrated by water than any others. Larigans should never be dried near the fire, as the heat draws out the oil, and causes shrinkage; frost does not injure them, and when taken off they should be placed in the cold.

In timber or on the plains, where there are no cacti, the soleless Chippewa or Crow moccasins should be worn.

In northern Montana, where the prickly pear is common, the Dakota (or Sioux) moccasin with par-flesh soles, made of pemmican bags, and firmly sewed with sinew, do good service. For winter wear in the north, the buckskin moccasin, partially filled with hay and worn over woolen socks and footings of blanket, will be found very comfortable. The perspiration freezes in the hay, and after a hard day's tramp a solid cake of ice will often be found, while the feet are warm and dry.

Of snow shoes the Chippewa is most desirable. Snow shoes are made in various ways. The Norwegians make theirs of wood, while those of the North American Indians are made with wood frames, woven over with shaganapa or strips of rawhide.

The white weasel skin makes the warmest cap for winter wear, and the color will not betray the hunter, while a coon-skin cap will.



Chippewa Snow Shoes.

A hunter wearing one was accidentally killed near one of our camps. He was trailing a black bear, and raising his head just above a log was mistaken for an animal by a member of his own party.

A cooking outfit is sufficiently complete in a double frying pan, out of which an oven can be formed, a nest of camp kettles, two iron dogs for kettles to rest on



Dunklee Stove, Unpacked.

in the fire, tin cups, plates, knives, forks, spoons, etc., and a light axe and hatchet. The Dunklee Camp Stove and utensils are great improvements on the rude camp fire. It will heat a cabin or tent in a few moments, and

consumes but little wood. It weighs but twenty-five pounds when packed with utensils, and its portability and utility make it a general favorite.



Dunklee Stove, Packed.

Rations should be chosen that are most easily carried and readily cooked. Good bacon is the main stand-by in camps. Not only is it desirable in itself, but it

furnishes fat in which meat, fish and fowl can be cooked. Flour is perhaps more the staff of life to the hunter than to the civilian, and a full supply should always be taken. Barley, rice, hominy and grits are good diet, and sugar, coffee, tea and a few dried fruits are among the necessities. All eatables can be conveniently packed in canvas bags, which will not tear in traveling. A few fish

lines and large hooks can be made good use of, as bass and pickerel are found in large lakes, and can be caught through the ice in winter or from the shore in autumn.

When the hunting ground is reached by water, a good birch canoe or dug-out is all that is needed for transportation; but if the route is overland, a good riding animal and one pack mule is necessary for each man. One horse is often well packed and *led* into camp and used in a variety of ways afterward. Many hunters return horses after reaching camp; but if feed can be found it is best to keep one, as it saves the task of packing game.

A most important matter is the selection of a gun, and hunting-knife. The improved Winchester rifle, model '73, is *the* gun for hunting in timber. It will not lead like the old Henry rifle, but shoots close and throws the shells clear from the breech. It can be well handled on snowy days, and easily loaded with cold fingers. During the winter of '74 and '75 we had in camp one muzzle-loading shot-gun, one muzzle-loading rifle, one Maynard breech-loading shot-gun, one improved Sharpe's rifle, one Spencer rifle and the improved Winchester. In extreme weather the main springs of all became frosted, so that we could not crack a cap or explode a cartridge, and beads were drawn without effect for three days on bucks, does and wolves.

The guns were wrapped in cloth and skins, and we even sat upon them to keep the locks warm, but Jack Frost penetrated everything; the Winchester, however, was the last to give out.

There are so many excellent shot-guns in the market that it would be an injustice to call one better than another. The Parker gun shoots all sizes of shot equally well, and such unusual shooting has been done with it, that it deserves particular mention.

The hunter really needs two knives, a good sized pocket knife, with a large blade and belly for skinning, and the regular sheath bowie-knife, of the best steel, for general use. For several years a heavy bowie blade of Rogers,' mounted in the butt of an old buck's horn, did me great service. Many hunters use the common Rogers' or Wilson's butcher knife, but they are only fit for dressing the game; whereas a bowie is a good weapon of defense.



CHAPTER II.

CAMPING, COOKING, BILLS OF FARE.

“Home is where the heart is,” and a hunter’s is in his camp. Picturesque sites in the “Rockies” are as fresh in memory as when we first staked canvas among them, and recollections of those peaceful days and nights will be with me always. No sleep is sweeter than under the blue skies of Heaven, and no part of life is purer than that passed in the wilderness. Venerable trees have risen at a mighty Will, and verdant roofs have been woven by a mighty Power that would make a temple of greater grandeur than those of wood and stone raised by our frail hands. Peals of thunder roll more solemn than any tolling bell, and sounds of softly murmuring, tinkling brooks fall on the ear more sweetly than faintest tones of sacred lyres. Birds twitter in branches, deer and antelope shoot by almost in shadow.

A morning plunge into a cool brook invigorates one more than can be imagined, and the day’s life gives an appetite never before experienced. Many delicate constitutions have been strengthened, and health restored to many whose lives were despaired of. One’s comrades make a vast difference in a man’s enjoyment, and their tastes and abilities should not be ignored. When camp-

ing in an Indian country an artist can always find subjects for his sketch book, a naturalist, specimens for his cabinet, a hunter, game, and an angler, fish. A dandy suddenly transported from Broadway to the far West, is the most disconsolate mortal on earth, and will cast a gloom over a whole party; beware of such!

A party of four "live" men can build a camp, and settle almost anywhere. Before settling for a Fall's hunting, or Winter's trapping, it is well to examine all the surroundings. A party will often "fetch up" at the terminus of a railroad, or near a steamboat landing, and find that they must get further away from civilization. One season our party hired a settler to haul us to a good game locality, where there was a water course, which would enable us to travel by raft until we found a suitable camping site. We decided to make a temporary shelter, and scour the country before building a cabin; so the first camp fire was made and a night's rest taken. In the morning, although feeling a little stiff, each went off in a different direction to view the surroundings. After a long day's search all met again at the camp fire.

"Poor country for still hunting," said Jim; "too level and too much underbrush."

"Jes so," said Dick the trapper; "but there's a heap o' sign 'cross the river in the oak timber; scrapes all over, bushes skinned, deer run early there."

"Right glad to hear about deer," said another, "but can't kill em yet: too many leaves on the ground, ankle deep, deer can hear a man walk for three hundred yards.

Then there's no feed when acorns are gone; must have hazel bushes, kinnikinick, popple sprouts, willows or white pines to browse on; besides, deer will soon go into the hills to run and get out of the wind."

So "the hills" seemed to be the best camping place and the next morning we loaded our raft and took an early start. Down the river we floated, and after a time selected the south side of a hill near the water.

The situation was thought to be a favorable one, from many points of view; when a deer was killed it could be rafted to camp; or in winter, traveling over the frozen river we could drag, instead of pack our game; also water could be procured by cutting through the ice. As various animals travel through river bottoms, it was favorable for trapping. The course of the river would enable a party, if bewildered in a snow-storm, to reach camp in safety. A winter camp should be underground as much as possible, so we "set to" and dug into the hill until we had a level site. Vigorously were swung our axes while felling the trees and cutting them in proper lengths. After hewing two even sides to each log, they were carried and placed in position, which was quite a task, as each had to be taken on two sticks between four persons, so as to have the weight equally balanced. Space was left in the back of the cabin for a fireplace, and the front logs were cut short to allow for a door. When the sides were up, a skeleton roof was formed of poles; this was covered with bark, spread over with leaves and dirt, which when frozen became water-tight.

The large logs were placed at the bottom; and for side walls, the butts were all laid one way, to give the roof a slight pitch. Logs for the front and back were fitted together to keep the walls level. The next thing was to dig out a fireplace, make in it a small throat, and line the whole with stones. When stones are not to be had, the sides may be braced with pieces of split wood, and the whole surface cemented with mud or clay.

Some basswood was then split to make slabs for a door; then the cabin was chinked up with the same. Every crack in the walls having thus been cemented, bunks and cooking outfit were arranged according to space. Not being able to indulge in the luxury of a closet, nails and pegs were driven into the walls, and a gun rack made near the fire, of bucks' horns and crooks of trees.

With the forethought of husbandmen, dry wood and pine cones were stored. Green birch, oak and maple will burn, but dry wood is better and should be provided when it can easily be obtained. After completing the cabin, we struck out two or three miles, and blazed trails and took note of peculiar features of the country, which would serve as landmarks. We felt no timidity in going a long distance from camp, knowing that the farther we ventured the sooner we could learn the country, and its best hunting grounds. During a snow-storm it is best to keep near camp, as objects covered with snow are deceptive. Pine timber lands change very much in the winter, and in some of our northern forests, any but a thorough

woodsman would easily be lost. It is always well for a party to have understood signals that can be recognized at a moment of danger or trouble. A camp may be constructed in various ways. If for temporary use, it can be made water-tight by covering it with a poncho, or piece of canvas; in an extremity bark and blankets are sometimes used. The A tent is best for use on the plains, as it is easily handled and affords shade.

Although the real enjoyment of camp compensates for any difficulties that may be experienced, the life is not without its discomforts, and even hardships. The illustration is from a sketch of an old camp, which was well stocked in November. We settled with the intention of staying two months, but got "snowed in," and were compelled to remain there until spring. Having, in the early part of the season, more meat than it seemed possible to use, we thought best to sell some of it. We got a Norwegian to "swamp a load" to our camp, and with oxen he hauled two loads of deer and grouse to the nearest railroad station, a distance of ninety miles. By January the deer began to yard, and the wolves came into the heavy timber, being driven from the plains of Dakota by the piercing winds; they scoured the woods, driving all before them, scattering and killing the deer, and picking up what straggling hares we had not killed, until the forest was cleared of game. Our flour, though used with economy, gave out; and had it not been for the numerous flocks of ruffed grouse that came from their burrows in the snow, to feed just before sunset, we would



AN OLD WINTER CAMP.

surely have perished from hunger. As it was, we became so weak that traps set near the camp were neglected; finally a lucky shot brought down a straggling doe, and this furnished food until we could re-stock with flour; to do this we had to break a trail to the nearest settler, and pack a few pounds to camp at a time.

Not among the least of comforts to be considered is the inner man, and a careful hunter will keep his larder well supplied. It is always advisable to have a good supply of cooked food on hand to guard against emergencies. Storms will not wait, traps must be cleared of snow, and game must be dressed and packed at the proper time. Biscuits never "go to waste" in camp, and should be made in large quantities. "Bean Swagen" is one of the substantials, and is easily cooked; the beans should be soaked over night, then, with any kind of meat, stewed slowly in a heavy camp kettle, which will prevent burning. Hominy, rice and grits make an agreeable diet; and prunes, dried peaches and apples are a pleasant variety in the fare. In Minnesota cranberries can be found, in Colorado, gooseberries and red raspberries, and in the mountains, the wild cherry and huckleberry. Nova Scotia boasts of a baked appleberry, the northern Rocky Mountains yield the serviceberry, and in the Missouri bottoms are found little red berries, called bullberries; they are small, very acid, and grow thickly on the thorniest of bushes; they make an excellent sauce, however, which relishes with buffalo steaks, or chops from mountain sheep. Summer

greens are often found, such as cowslips, wild spinach, brakes and palmetto. There is a plant having a large bulbous root like a turnip, which is very palatable in stews or soups; it is called bread fruit by the trappers, and is used in large quantities by the Indians. Good bacon is savory, and makes excellent gravy when thickened with flour. Camp bread can be made as follows: With flour and water mix a pail of batter, and if the weather is cold, hang the pail near the fire till sour; then add salt, also soda or baking powder to neutralize the acidity, thicken with flour and knead well. If salt is mixed in the *batter* it will take longer to sour. After kneading, cut in pieces and set before the fire to rise; bake them in the open tin oven, bean pot, fry-pan, or in ashes, as your resources will admit.

The flesh of the big horn of the Rocky Mountains makes the finest eating; then comes the mule deer, and young buffalo cow. Antelope meat is dry and unsavory, except early in the Fall, when the quarters of the young doe are at their best. The meat of the grizzly is better than that of the black bear, as the flesh is lighter colored and not as strong. Roasted coons are a favorite dish with many; their fat makes good shortening, and is useful in frying meats. The favorite "bite" of the trapper is the tail of a beaver, roasted to a turn; but they contain a great deal of grease, and every one would not appreciate them. Teal and young ducks, broiled over buffalo chips, are enjoyed by all hunters on the plains, and make an agreeable change from bacon and salt junk.

Grouse are good until they begin budding, when their backs become very bitter. Young sage hens are fine eating, but the old ones are suggestive of fish hawk. The wild turkey is the king of game birds, and is always welcome in the hunter's camp.

The Bay of Fundy furnishes the hunter with cod, hake, pollock, flukes and herring; the little island of Nantucket is a favorite resort for lobsters, and there are sea birds' eggs, which may be used in various ways. A mention of Western fish must not be omitted; salmon trout and white fish have been taken in the St. Mary's river and Chief Mountain lake, in the Province of Saskatchewan, that would have made Sir Isaak Walton stare. Trout, the delicacy of whose flesh is well known, are found in many streams of the "Rockies;" one species of the salmon trout predominates, being common to all mountain streams where falls do not prevent their ascent. Salmon trout are very abundant in the Eagle river of Colorado; and near the mountains of the Holy Cross great numbers of them were taken, using grasshoppers for bait.

The silver catfish abounds in the Missouri and Mississippi rivers; they are good eating, and may be caught with pork, venison, or the flesh of birds. Throughout our entire country the resources and varieties of food for the hunter are unlimited, his supplies depending on his skill and judgment; which requirements are also needed in their preparation as food.

CHAPTER III.

MULES AND HORSES.

An Irishman spoke truthfully when he said, "The hunter's best horse is a mule;" and the great prejudice that people have against them arises more from ignorance of their natures than any other cause. Mules are kind, gentle, and easily managed, and after long usage one becomes much attached to them. A quick, long-legged mule, of medium size, will, if carefully trained, make a useful animal, and has the human trait of liking to be persuaded rather than driven. All dumb beasts will, in their way, express much gratitude, and usually serve a considerate master faithfully. A mule that has been abused is always jerking his head about as if expecting each moment to be struck.

In the mountains a mule will outclimb or outpack a pony, and keep fat on the poorest of food. Mules eat an incredible quantity of grass, and their accommodating sides expand to make space for any amount; indeed, the exact capacity of their stomachs is something that has never been fully calculated. A packer is often in a state of despair on finding a cincho a foot or so short, that a few hours before was slack.

A good mule will pick his way over loose stones, fallen timber and rocks; shows great sagacity in fording rapid

rivers with uncertain bottoms, and with free rein will take a bewildered hunter to camp through storm and darkness. When mounted and still-hunting, every stick and stone is avoided, fallen timber is crossed without the sound of a misplaced hoof, and the hunter is carried silently over all kinds of surfaces. The best trails are chosen, and with large ears "pricked," the mule stands instinctively at sight of game and gives chance for a good shot. Some will stand fire remarkably well and pack warm game without a tremor; others will become violent, and on seeing dead game or smelling blood, will back and kick furiously. All mules are affected by the smell of a bear. We had a great struggle with one while packing the skeleton and skin of a grizzly; he resisted very strongly during the first few days of travel, but finally carried the load four hundred miles. Most mules are slow travelers, but occasionally a fast one is found. In 1874 a hunter in Montana owned one that would catch a bull buffalo; the cows, however, were too much for him. When riding a mule, a broad cincho and wide crouper is needed, as the saddle is inclined to slip forward and turn, particularly when going down hill.

A mule that insists upon being lazy can scarcely be spurred into activity; with a good leader they will sometimes quicken their pace, as they do not like to be left behind. The high tempered Mexicans must have great skill in managing them, as they have not the patience to wait their motions. They are very powerful when frightened, and require the full strength of a lariat to keep

them in place when away from the herd. A small mule walked into camp one day dragging a good sized pine tree, to which he had been tied four miles distant, and we greeted the rider a few hours after as he came in sight with the saddle on his shoulder. They have great confidence in a horse, and will often follow him in single file when it would be impossible to drive them. When large mounted parties are hunting, a bell mare is picketed, and the other animals will not leave her unless the feed is very poor. Mules known in Western parlance as buck mules, excel some horses in real beauty; their plump quarters, tapering legs, small hoofs and glossy coat, with the characteristic black stripe down the back, make them attractive animals.

Mules are easily frightened into a stampede; they are much given to rolling, and will often do so when packed for a march. Indian ponies are the horses usually used by hunters. They are scarcely fourteen hands high, of rather light build, and have bright, intelligent eyes. Indians have a faculty of getting a great deal of work out of them, and the ponies, in their hands, are at all times submissive; when managed by the whites, they become stubborn and lazy, and the mule is more generally preferred. These ponies are good travelers, have greater power of endurance than the American horses, and are useful in many cases; they should not be run too hard or loaded too heavily; and when climbing a mountain side, they should be tacked up to lessen the angle of ascent, and give sure footing. When trails are rough, and obstructed

with rocks and fallen timber, the ponies should be dismounted and led by taking the rein over the arm. In attempting to pull they often become stubborn and unmanageable. Faulty management has ruined many horses and mules. When they attempt to draw away at the end of the rein it is advisable not to pull forcibly, particularly if a curb bit is used, as they always resist it. All riding animals are often urged over too great a distance without food. They should be allowed to stop and feed occasionally, if only for a few moments. A herd must be watched and not allowed to drink too much alkaline water, or rush for water into quicksands; in many places on the upper Missouri the soil is so treacherous that it is impossible to lead stock to water.

In picketing a horse, a lariat, about thirty-five or forty feet long, should be used. It should be tied rather tightly to prevent its slipping and choking him; it will also keep his feet from getting through when brushing flies from neck and ears. The foot, when once through, is not easily withdrawn, and often causes a severe struggle; when a horse is sharp-shod his head and neck sometimes become so badly lacerated, that he will bleed to death, or strangle from the effects of the rope and the swelling of the wounded parts. The iron picket pin, with a swivel



Lariat.

and four concave sides, is light of weight and very secure.

Some ponies ride easy; others, a little knee sprung, will more than settle a man's dinner when going down hill; when cantering on level ground, however, their defective gait is no inconvenience.

Speed is one quality which makes a horse preferable to the mule; he can hunt the buffalo, and take the hunter quickly to camp; he will not stampede as easily as the mule, and will stand fire better.



CHAPTER IV.

DOGS, THEIR USES AND CHARACTERISTICS.

A dog, like an individual, is loved for his good, and disliked for his bad qualities; but in the predominating characteristic, love of master, there is a mute but touching significance that must reach the heart of all who have owned one. He is man's most serviceable slave; and whether directed by a cruel or gentle hand, is faithful unto death. The fastidious tastes and changeful fancies of our sportsmen have given preference for, or prejudice against each variety of dogs that assist them in the hunt. The setter now seems to be the favorite, and if good looks are a recommendation, he certainly ought not to be among the least of man's best friends. Rather heavy in build, but light of foot, he is ready to follow the sportsman, and wags his bushy tail, and gives a dog's impatient whine, when gun and game-bag suggest the day's sport; full of life and animation, he "starts" the bird; and when told to "charge," crouches in such beauty that we have often stopped, when loading our gun, to admire him. With the greatest of delight he brings the game, but, to his discredit, will occasionally chew it. He hunts the English snipe to perfection, and will retrieve well from water; but as it is seldom necessary to do so, this trait is not often brought into

play. He is of an excitable nature, and failing to obey a hunter's commands, often needs to be corrected; he is also possessed of a certain amount of stubbornness, which has to be overcome.

With his heavy coat the setter does not mind the cold, and in hunting suffers but little inconvenience from briars or nettles. He hunts well in marshes, or thick cover, and may be run constantly, from the Fourth of July to the moulting season. He is susceptible to heat, and often needs a cooling bath; but if allowed to go to the kennel with soaked coat, becomes chilled and often sick. The setter is more subject to disease than some other breeds, and requires careful attention. Socially, we cannot speak well of him, for he dislikes children, is fractious to strangers, and often bites.

THE POINTER.

The pointer, though having many admirers, seems to be somewhat at a discount with sportsmen just now; but his unusual intelligence, gentle manner, and quick, yet quiet and effective hunting, will always be great recommendations in his favor. He hunts carefully, gets nearer to the game than the setter, and seldom chews a bird. Having short and thin hair, he cannot endure great cold, or come in contact with briars or nettles; but in hilly country, and open cover, he has no superior in hunting grouse, and will also follow the quail carefully, and bring many to the hunter's bag. He is not stubborn, learns much easier than the setter, remembers the things taught him, and is friendly toward strangers and children.



"BELLE," CHAMPION FIELD POINTER OF THE WORLD.

THE SPANIEL.

Although possessing much intelligence and beauty, the spaniel is not as great a favorite with the sportsman as the setter or pointer. His scent is not keen, and he is a poor hunter, except in retrieving from water. His aptness in learning tricks, and intelligence in performing them, however, make him a household pet. We knew a cocker spaniel that would swim across a creek, carrying a lighted pipe high out of the water; and have sent this same dog on the back trail two miles to bring a bunch of grouse, left to lighten a load, and he brought them back safely. Another time we lost a whip while driving and sent him back to look for it; in about an hour he returned with the whip in his mouth, shaking his head, leaping, and manifesting great joy at his success. He was familiar with the names of articles used by the hunter, and would bring them at bidding, and with a basket and note did the family marketing daily. A spaniel we once owned seemed to know that wood was used for fuel, and would bring every piece that he could find to the woodpile. A small board formed a bridge over a ditch near the house, and this he took away continually until it had to be fastened down. One day having invited some friends to hunt we needed a horse, which was in the field and refused to be caught. We were giving up the chase in despair when the spaniel suddenly appeared and seemed to take in the situation at once; chasing the horse into a corner he caught the end of the trailing rope in his mouth and held it securely until some one came up.

THE HOUND.

The stubbornness of the hound is equal to or exceeds that of the mule. One real ability which he has, is successful thieving; this appears to be his chief characteristic. His keen nose never fails to direct him to the nearest steaks or roasts of beef, and they are seized without the slightest hesitation. He never knows the pangs of hunger when there is venison in the camp, and is so quiet and cunning, that his movements are not suspected. He can endure the greatest extremes of heat and cold, often lying by the camp fire, where it would be impossible to hold one's hand; then going out in the intense cold, will hunt the fox or deer through snow a foot deep. Hunters get out of patience with him, and give him many butts and kicks, but all to no purpose. When led in still-hunting he sees fit to "give mouth" when the twigs rebound and sting his large ears, and also gives vent to his feelings when coming in contact with briars. Apparently for entertainment, he will cross on contrary sides of trees, and insist upon your coming round his way; and if he gets under a log or fallen timber, you must either get down on your knees and follow, or untie the knot of his cord at your belt, or remove his collar, securing him at the same time by the skin of the neck. Should you attempt to hold him by the ear, he will draw away and pull until painful, then howl with all his might.

The hound serves a purpose at times, however, in hunting, as he will drive the moose, deer, fox, hare and rabbit with great persistency, and often gives bruin a good rub.

He will find a wounded deer when the hunter is at fault, and pulls it down fiercely. Hounds are clannish, and when attacking large animals, fight savagely in a body. They are not quarrelsome, but if molested by other dogs will fight as long as strength lasts.

DISTEMPER.

Young dogs are subject to distemper, and it usually sets in when they are from three to nine months old. It begins with a cold in the head, want of appetite, and weakness in the back and hind legs. In two or three days the dog begins to snuffle, the eyes to run, and the nose discharges a greenish substance. The coat loses its gloss, the legs become cold, and the whole body has a strong and disagreeable odor; fits then follow, and the dog wanders stupidly, trembling and disconsolate; this is the worst stage of the disease, and often terminates fatally. The distemper is really an excessive cold, which settles into a kind of consumption.

When a dog is attacked, castor oil should be given and powdered sulphur mixed with his food, or given in pills; calomel, in small doses, is often beneficial. The dog should be given light, warm diet, and never be allowed to get chilled; a warm bath, and free use of castile soap or ammonia is often very effective. The distemper is more or less contagious, and a sportsman cannot watch his pack too carefully.

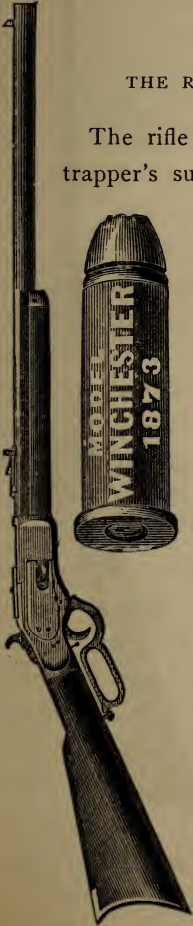
CHAPTER V.

THE RIFLE, SHOT GUN AND BLOW GUN.

The rifle is the "king pin" of the hunter's and trapper's success, and knowing all makes like old friends, we shall take pleasure in speaking justly of their qualities.

For a timber gun, or rifle for short range, nothing can excel the improved Winchester, model '73. It is a close, clean shooter, is easily kept in order and is handily packed while in the woods, or carried on a saddle. When cartridges are carried in the magazine for several days the ends of the balls become battered, but they can easily be trimmed up with a knife or file. We carried a Ballard for several years, being prejudiced against repeating rifles; but on using a friend's for a few days found we were decidedly behind the times. A hunter will often part with a shot gun, but it is a difficult matter to make him give up his rifle for a new one.

For large game and long range shoot-

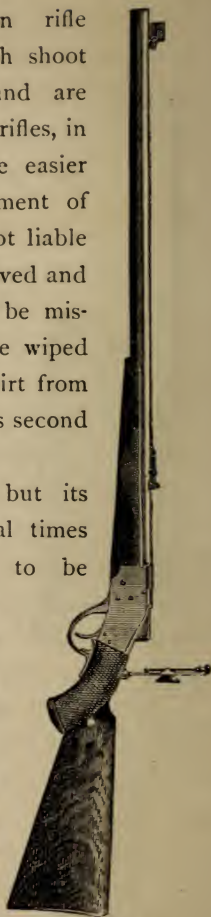


Winchester Rifle.

ing, the Sharpe's and Remington rifle should be recommended. They both shoot close, hold the same cartridges, and are of equal merit. We have used both rifles, in all weathers, and think Sharpe's the easier to manipulate. The vertical movement of the breech-block is safe, easy, and not liable to get out of repair; it is easily removed and cleaned, and there are no screws to be misplaced and lost. The barrel can be wiped from the breech, thus removing all dirt from the working parts, and in shooting it is second to none.

The Remington rifle shoots well, but its works are sometimes cranky. Several times we have known the Remington to be affected with frost so the breech-blocks would stick fast. When warmed they would work well, but when exposed to the air again they would soon be frosted. The set trigger is not to be depended on, for it soon becomes worn in many of the cheaper guns, and a jar will let it off. The set trigger of the Winchester is sometimes faulty, but it pulls so easily (very much like the Colt's revolver) when not set, that it is not necessary to use it set in severe weather.

When shooting rapidly, the Sharpe's rifle is more



Sharpe's Rifle.

conveniently loaded than the Remington, as the cartridges naturally fall down into the barrel; with the Remington it is often necessary to seat them with the fingers.



Cartridge for Sharpe's Rifle.

The Maynard rifle shoots well, and we have done good shooting with it when hunting antelope, but its awkward stock makes it unpopular with sportsmen.

The shells of long, heavy cartridges will stick in most rifles when a little foul. A breech-loading rifle should never be used when dirty. If you have been shooting rapidly, wipe out your rifle, at the first opportunity, and clean, with a greasy cloth, the dust from a few of the cartridges in the front of your belt. When riding over the dusty plains it is almost impossible to keep cartridges greased and clean.

The Needle-gun and Winchester rifle are superior to all others in throwing shells clean from the barrel. The Winchester rifle will throw the shells over the hunter's shoulder, and when firing rapidly at running deer, at long range, a second shot is often fired before the first shell strikes the ground.

Lieut. W. L. Carpenter, United States Army, has a model rifle which was made to his order. It consists of a long, heavy Remington barrel with the Springfield needle-gun breech-block; it has three rear sights, which work

independently of each other. He says it is "dead medicine," and from the manner in which he had decorated a woodman's cabin on the upper Missouri with quarters of elk and venison, we were convinced of the truth of his

statement. He formerly used the Remington sporting rifle, but discarded it on account of the defects mentioned.

It would take more space than can be given here to describe all the different shot guns; and as we are writing of American sports, a description of American guns only will be given. Sportsmen now-a-days are very fastidious, and buy many imported shot guns, and it is to be regretted that home manufacture is not more encouraged. American rifles are the finest in the world, and our shot guns might be if the manufacturers were sufficiently patronized. We have a dozen good makers in the United States that would turn out beautiful guns if sportsmen would pay for the work in them. The different grades of



Parker Gun.

the Parker gun are an example. We have tested them

with others, long and thoroughly, and think they are unexcelled.

Then we have the Remington shot guns, which cost but forty-five dollars. They shoot hard and close, and work admirably. This is the gun "for the million," and is the best breech-loader in the market for the money.

The Fox gun differs from all others, having a side action when loading, thus doing away with the clumsy fall of the barrels, which occurs when charging other breech-loaders.

It is not so liable to wear, being unlike the greater number of breech-loading shot guns, in having no hinge for the barrels to work on.

The Fox gun will stand uncommonly hard usage; we have seen it subjected to severe tests, and have never known one to give out.



Remington Gun.

Next, we have the newly invented Baker gun; it is



Fox Gun.

already becoming popular, and its utility will make it the deer hunter's favorite. In this gun we have a heavy, strong shooting breech-loading rifle, and a fine double



Baker Gun.

breech-loading shot gun. With a heavy ball in the rifle barrel, a charge of loose "buck" in one shot barrel, and a wire cartridge of buck shot in the other, the hunter is "fixed" for all emergencies. The sights of this gun are directly over the rifle barrel, and the hunter has only to calculate on the trajectory.

The American sportsmen were once dependent on Eley Bros., and other foreign manufacturers, for their cartridges. Now we have domestic shells of good

quality from several makers. The Williams' patent conical base paper shell is a novelty, and the best in the market. It is based on the same principle as the boring of the breech of muzzle-loading guns; and does better shooting, with less powder, than the common flat based shells; the illustration shows its points clearly.



The shooting qualities of breech and muzzle-loading guns are subjects of great discussion. Our experience is that the muzzle-loader shoots the strongest and best, particularly with light charges. The greater portion of breech-loading guns will recoil when long, crimped cartridges are used, the crimping appearing to make the difficulty.

The metallic shells, if properly charged, shoot stronger and with less recoil than the crimped paper ones; yet the metal shells often stick in the best of guns, and cause much trouble.

Many sportsmen shoot too much shot, and use that which is too coarse. Equal bulk of powder and shot are good proportions, except when shooting very coarse shot, then a few extra pellets may be added. It is necessary to use more powder when shooting cartridges than when using the muzzle-loader. When hunting ruffed

grouse in timber, in their wild, shy season, charge the right hand barrel with No. 7 shot, and the left hand barrel with No. 6; use No. 5 shot when shooting pinnated grouse on the prairies.

Every gun has its specific charge for good shooting, and is regulated by its weight and bore; practice only will determine this point, and when decided upon, do not deviate from the proper load. A gun will make the most regular pattern when clean; when dirty it often sends the shot irregularly, in bunches; and when an occasional long shot is successful, the amateur sportsman might think a gun most reliable when foul. Experience, however, teaches one that a clean gun shoots the best. When shooting rapidly from a muzzle-loading gun, if it becomes foul and begins to recoil, the charge may be slightly lessened, as the dirt in the barrels causes the wads to fit tightly, and the strength of the powder is more fully used than in a clean gun.

Never shoot loose wads; it is a waste of ammunition. Many of the barrels of common guns are made too thin at the breech, which makes them dangerous, and causes them to kick unmercifully. Breech-loaders which are chambered so deep that the cartridges do not reach the shoulders down the barrels, will also pound the sportsman. When charging a gun, set the wads tightly, but do not *ram* them; it causes a gun to recoil, and also shoot wild. Use a good stiff ramrod, even if the pipes have to be removed from the gun, and larger ones substituted. Many of the rods that come with French and German

guns will not send a wad home when the guns are foul. When selecting a gun have length and bend of stock to fit, as no one can mould himself to an awkward gun and do good shooting.

The blow gun is little used in this country; but in South America it is the common gun of the natives, and with it they kill thousands of birds annually. To make a blow gun, get a glass pipe, such as glass blowers use, it should not be less than eight feet long, its effectiveness depending much on its length; however, it must not be so long that it sags. The inside diameter should be half an inch; if it is larger the pellets cannot be blown with sufficient force to kill a bird, and if smaller, it is too light to be effective. The mouth of the pipe should be slightly flared, or spread out, that the edge may not mar the pellets when inserting them. The pipe must be encased with wood; to do this, take two flat pieces of straight-grained pine and gouge a half round groove in each, to closely fit the glass pipe; glue together, and wire firmly till dry; after which remove the wire, plane the wood as round as possible, and sandpaper till smooth. Putty, thickened with whiting, should be used for ammunition; it should be hard, but not sufficiently so to crumble; roll the pellets into a round shape, between the thumb and finger. It requires a short, quick puff to send the pellets forcibly, but with a little practice it is easily acquired. The shot gun is generally objectionable in a garden, but the blow pipe may be safely used; fruit that is out of reach can be brought down by it, as the pellets, though

soft, will cut the stems like bullets. When small birds are migrating, many specimens for mounting can be obtained, and it generally kills them without making wounds from which blood would flow. Perhaps the efficiency of this novel gun will be somewhat appreciated when it is stated that with it eleven birds have been killed by as many successive shots.

CHAPTER VI.

BOATS AND CANOES.

To travel down a rapid river, in a well trimmed boat, or paddle a canoe over peaceful waters, is one of the pleasures of a hunter's ever-varying life. Many rivers take most beautiful outline, and in passing through the wooded cañons, luxuriant with vines and flowers, and resonant with songs of birds, or again, coming in sight of rocky shores which are apparently bare and lifeless, one may see pictures of beauty which, in combination, appears a moving panorama of nature.

The most modern, and at the same time most utile invention that we have, is Bond's section boat; it can be used as one, or divided in halves; each makes a complete small boat. Like a canoe, it can be paddled with ease, and its portability makes it valuable to the hunter and trapper.

The duck boat is very lightly built with rounded deck, low keel, and a nearly flat bottom; a scull hole is made



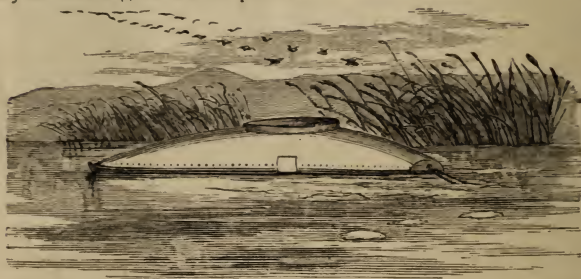
Bond's Boat, ready for use.

in the stern, to enable the hunter to propel when crouching under cover of the deck. This boat is easily propelled, not crank, and will carry a heavy load. It can be dres-



Boat Packed.

sed with sedge for Fall shooting, and in the Winter needs only a coating of white paint.



Duck Boat.

When logs are obtainable a dug-out is often used. It can be hewn into shape with an adze, and is a task of about two days. Indians burn them out, and hasten the process by continually removing the charred wood. Dug-outs, made of cotton-wood logs, are light and desirable; but the greater proportion made from other varieties of wood, are managed with difficulty, and used only in cases of necessity. All dug-outs should remain in the water and be kept soaked.

The bull-boat of the Western Indians is of great burden, and does good service in crossing and descending

rivers; it is simply a large, shallow, circular crate, usually covered with the raw skin of a bull elk, which is securely fastened to a strong hoop, used as a rand or gunwale. The Indians make use of them when carrying game and peltries to trade, and, in the absence of ponies, the squaws perform the wifely duty of packing them about on their backs. In warm weather an Indian will often swim behind a bull-boat to propel and guide it; when paddling, they sit on opposite sides of the boat to prevent its turning.



Bull-Boat.

Of canoes, the Passamaquoddy and Chippewa should be placed first in the list, as they are very light and portable, and if properly trimmed will carry a heavy load. A medium-sized canoe should be paddled by two men, one sitting just back of the first thwart, the other as far aft as possible, these positions giving complete control. When paddling in still water it is best to sit in the bottom, in the cross-legged Indian fashion; when ascending swift water, however, it is necessary to paddle from the knees; the paddles should be very light, and have broad,

thin, springing blades with rounded corners, the other end being of nearly uniform size with cross-pieces fastened parallel with the blades; these cross-pieces serving as hooks to hold the canoe. In swift running water it is often necessary to dispense with paddles, and use iron-shod poles, which will not slip on rocks or stones.

There is a vast difference between polling tediously up a stream against the current, and sitting quietly in the stern of a canoe, guiding it as it shoots in quick succession the rushing rapids; none but those who have used the birch canoe can imagine how easily it is paddled; a single stroke sends it shooting over the water and the impetus is easily retained.

A canoe ought always to be loaded where the water is sufficiently deep to keep it from striking snags and stones. Holes in a canoe can be patched by sewing on with split pine roots a piece of soaked or steamed birch bark; in cases of emergency the bark may be used as taken from the tree. The seams should be covered with a melted mixture of pitch and wild cherry gum; when the latter is not obtainable, grease of any kind can be substituted; this mixture must be applied when hot, and the consistency should be such as when cold to resemble resin.

In carrying the canoe over portages, the paddles should be bound longitudinally across the thwarts, so that the head can pass easily between, and allow the paddles to rest on the shoulders; they must not extend too far, or the shoulders will be cut and made lame.

A small raft of dry logs can often be made use of, and may be constructed as follows :



Hunter on Raft, with Deer, Floating Down River.

Two or three logs should be cut the required length and fastened together, as shingles are bundled, and that the cross sticks may not slip, shoulders may be made, by cutting notches across the logs near the ends. The logs are fastened in position by two cross sticks firmly secured by twisted ropes, or strips of hide. The raft seen in the illustration is made of only two logs and is quickly put together; in still water a raft of this kind can be paddled over a lake with considerable speed. Dry white pine and cotton-wood are buoyant, and should be used when obtainable.



CHAPTER VII.

HUNTING—HOW INDIANS HUNT—THEIR ARMS, HORSES, ETC.

Whether it is the school-boy who topples the nimble squirrel from the walnut or chestnut, or the veteran hunter that rides down the buffalo or attacks the bear in his stronghold, there seems to be an intensity of enjoyment in hunting that is unequaled by any other out-door sport.

Each hunter, however, has his favorite game. The Indian hunts the buffalo, the Virginian and Kentuckian bring to grief with the pea rifle many squirrels and wild turkeys, settlers in Minnesota hunt the deer unceasingly, and fancy sportsmen bag their game before a well-trained setter or pointer. The "old salt" makes less exertion lying in sneak boxes and blinds, cutting down birds as they come to the decoys. The fox hunter and Southern deer hunter delight in the music of hounds, and the trapper watches in solitude the lick, or stalks his game while feeding.

In choosing weapons, many deer hunters prefer the rifle, and others the shot gun, charged with buckshot. In open country where large game is chiefly shot at long range, a rifle is preferable, but in the palmetto thickets of

Florida, tamarack swamps of Minnesota, also in the Missouri and neighboring river bottoms, the shot gun is used.

A hunter in the far West must *work* to accomplish anything, as there is much to endure and overcome, and however well he may be equipped, he will find no reward for his labor unless he has knowledge and skill. Winds must be understood, game approached carefully, the body kept concealed, and the hunter should be in a calm state of mind, and fire with judgment. Game is always found near the lakes, where it comes to drink, and one could nearly imagine that the clear, reflecting mirrors, framed by the greenest of grass surrounded by evergreens and giant rocks of sombre gray, were so beautiful in effect as to entice even the deer to their banks.

An Indian, notwithstanding his warlike propensities and distinguishing characteristic of cruelty, when in the prime of manhood fully equipped for the chase, is a picture that cannot fail to call forth admiration.

Iron-jointed, supple-sinewed, he mounts his pony, and with bird-like grace and freedom rides at lightning speed, leaping the saddle from side to side in a manner almost incredible to relate. When not under excitement the Indian has a patient, inoffensive look, and one would scarcely think he was capable of committing the cruelest of deeds.

The Indian is a perfect hunter, but not a good shot. He is most patient in waiting for game, and will lie for hours as noiselessly as a cat watching a mouse. The most intense heat of the sun on the plains does not seem



CLEAR LAKE IN ROCKY MOUNTAINS.

to affect him, and he will often lie a whole day at a water hole waiting for game to come to drink. Indians hunt more or less in the Summer, but the Great Fall Hunt is the event of the year, and in it they seem to find the most perfect enjoyment and great excitement. At this time meat is killed and cured for Winter use. They hunt but little in Winter, and then chiefly in pleasant weather, going but a short distance from camp, on foot, as the ponies are too thin to carry them.

There are laws in some tribes that forbid an Indian to hunt alone far from camp. If found hunting on the sly, they are soldiered, that is, have their clothes cut to pieces on their return to camp.

They prize a good gun highly, and appreciate the points nearly as well as our own people. The brass-mounted Winchester carbine is their favorite gun for hunting or war. We were quite amused in examining the guns of one Indian camp. Some had the most common of shot guns, cut short like carbines, many had the pea rifles, and occasionally a double-barreled gun was seen; there were many old muzzle-loading Springfield muskets and Spencer carbines, and now and then a Ballard; large bore muzzle-loaders, however, prevailed. Many of the Dakota (Sioux) and Assineboine warriors carry good Government needle-guns, Sharpe's carbines and brass-mounted Winchester repeating rifles. The stocks of the guns, and their belts and saddles, are ornamented with brass nails driven in every conceivable form. The Sioux and Assineboines are tall and muscular, and look as

though they know how to use their guns; they wear canvas and leather cartridge belts like the whites, which are generally well filled with fixed ammunition.

An Indian will barter anything for ammunition, even a valuable robe, or blanket from his back. When crossing Montana in 1874, Indians came about and tried to trade for cartridges; it was quite amusing to see them continually show their empty cartridge belts (which had been cleaned for the occasion) and urge our party to trade. They offered pemmican, jerked meat, robes, skins, gun cases, moccasins, and tobacco bags ornamented with porcupine quills and beads, and filled with Kinnikinic. We had a heavy belt of the extra long central fire cartridges with patched balls, which were new to them; pulling out a ball from a cartridge and handing it to a buck, he examined it carefully, passed it to his comrades, then returned it with a grunt of satisfaction and uttered the word "wash-ta" (good).

Some Indians foolishly chew their bullets until they are so rough they can scarcely be forced down a rifle. We told one Indian that it was "bad medicine," and the bullet would not go straight; he took a badly marred ball from his pouch, pointed to it and said, "good medicine, heap kill deer."

They accepted fire-arms rather doubtfully at first, but now nearly all Indians possess one of some description.

There were two kinds of bows used by the aborigines: the short stiff bow for buffalo and war, and the long bow for small game. The latter is seldom used now among

the Northern Indians, they preferring the short bow, as it is more easily carried when riding in the hunt or fight. The Eastern Indians used the long bow; the Seminoles used one of medium length, between the long and buffalo bow.

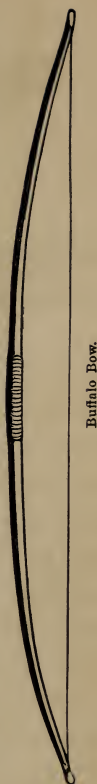
All good Indian bows are strengthened by sinew, which are stretched lengthwise, and around them. The sinew from the back of the buffalo is generally used, as it is long, flat and fibrous, and can be split into any width of band, or size of thread.

The heavy bows have broad strips of sinew put on them longitudinally, and are cross wound over with *shaganapa* or rawhide, and fine sinew.

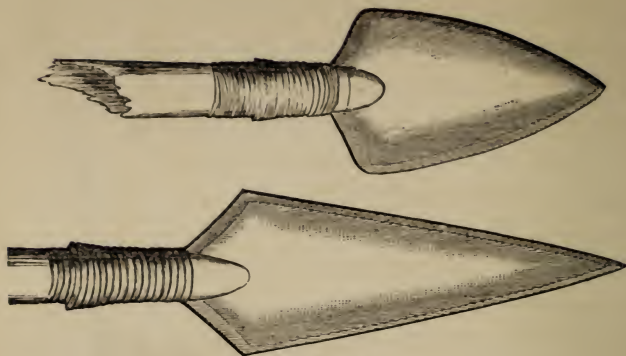
The arrow heads and feathers are fastened to the shafts with the same material.

There are two styles of arrow heads, the long for buffalo and the short for general use. The flint-arrow head has disappeared among all the tribes we have seen.

Arrows are deeply notched to receive the heavy rawhide string of the bow, and their ends spread, to prevent their slipping from the hunter's grasp. The Indian hunter prizes his bow as much as a rifle, and it is a difficult matter to buy one, without paying a fabulous price. The bow is used with great care and carried in a cover of leather or fur. Indians often make bow cases from



Buffalo Bow.



Arrow Heads.

the skins of their dogs, but some of the great warriors have covers made of otter skins. A large otter skin with a perfect tail to protect the bow is invaluable. Skins of albino animals are also highly prized for quivers and bow cases, and the skin of the white buffalo—more common than is generally supposed—is considered “good medicine;” they think the *Walkatanka*, or Great Spirit, favors those who wear them.

Quivers are also made of leather and fur skins, ornamented with beads, colored porcupine quills and fringe, and are usually strung from the right shoulder.

The short bow is a very effective weapon in close quarters, and with it the average Indian can discount all breech-loading rifles, except a repeater.

An Indian will bury several arrows in a buffalo in a few moments; and a dozen or more of them armed with bows, in ambush, will make lively work for a party of whites. Whether the Northern Indians have

ever used poisoned arrows or not we are unable to state; we have questioned many about them, also trappers and interpreters, and have found no clue to their having been used. Many suppose that the arrows were poisoned with the venom of the rattlesnake, but the Indians are so superstitious relative to killing it, that we do not think the belief authentic. They never fire at one, saying it is "bad medicine," and will spoil their guns.

The young bucks and papooses make bows and arrows of every description, and are continually practising at birds.

The Indians hunt more on horseback than any other way, and the endurance of their ponies is wonderful. Although in constant companionship, the Indian has not the least feeling for his pony, and shamefully neglects and abuses him. He is never stabled, blanketed, curried, or even fed. Saddles are strapped on mercilessly, and the pony is ridden cruelly; if his back be torn and lacerated



at night, he is turned into the herd without a thought, and forced under the same saddle the next day. In Winter they have very little food, and become almost skeletons, and were it not for the branches and bark that the squaws cut from the cotton-wood tree they would die of hunger; as it is, they are pitiable objects with their shabby coats and extended hips; but when Spring comes and food is plenty, their transformation is wonderful, and they are ready to perform the cruel tasks of their remorseless masters. Although a slave to the Indian, it is a singular fact, that stabled and fed in the hands of a white, the pony becomes stubborn and even dangerous; like many of the human family, prosperity does not agree with him.

It is generally supposed that Indians never make use of dogs in hunting, but do their own driving on foot; there are, however, some tribes that use dogs successfully in the chase. The Chippewa Indians surround a favorite feeding ground of the deer, and one of their number turns the dogs loose in the centre. Some of them are well trained, and hunt independently of each other, and several deer are often killed at one drive. The number engaged in the hunt is regulated according to the number of runways to be manned. Large parties often split up and hunt in localities suited to their number. The Chippewas occasionally still-hunt singly, having trails cut through their hunting grounds as nearly parallel as possible; there are then no twigs to obstruct the view, or dead sticks to crack and alarm the game.

A great number of dogs are seen in every Indian village, though we saw more with the Crows than with any other tribe. There are no pure blooded dogs, nearly all being crossed with the wolf. In the Winter they are disconsolate, half starved looking creatures, but during the buffalo season they fare sumptuously and become very fat. These dogs fight savagely, much to the delight of the young bucks, who never separate them, but let them fight it out. The Indians make an article of food of their dogs, and tan their skins for mats. They also use them to haul sledges and carry light packs.

CHAPTER VIII.

BUFFALO.

The buffalo with his humped back, shaggy head, intent eye, and giant proportions, is a formidable creature to look at, but his appearance does not represent his nature, as he never attacks except when wounded and in self-defense. He has been hunted for two centuries, and for the past twenty years mercilessly and wantonly. The cows have been slaughtered until they are far outnumbered by the bulls, and the time is not far distant when the buffalo will exist in tradition only.

Buffalo are now found on the great plains between the Missouri river and the Rocky Mountains, north into the British Provinces, and south into the Southern United States. Their resting ground is the mountainous and hilly country on the upper Missouri river, where large herds and scattering bands escape the merciless fire of the Indians. The buffalo once ranged as far East as the Carolinas, as may be seen by the following report of John Lawson, Surveyor General of North Carolina, in 1709 :

“The buffalo is a wild beast of America, which has a bunch on his back, as the cattle of St. Lawrence are said to have. He seldom appears amongst the English inhabitants, his chief haunt being in the land of Mississipi,

which is for the most part a plain country ; yet I have known some killed on the hilly part of Cape Fair river, they passing the ledges of vast mountains from the said Mississippi, before they came near us. I have eaten of their meat, but do not think it so good as our own beef; yet the younger calves are cry'd up for excellent food, as very likely they may be. It is conjectured that these buffalos, mixed in breed with our tame cattle, would much better the breed for largeness and milk, which seems very probable. Of the wild bull's skin, buff is made. The Indians cut the skins for the ease of their transportation, and make beds to lie on. They spin the hair into garters, girdles, sashes, and the like, it being long and curled, and often a chestnut or red color. These monsters are found to weigh (as I am informed by a traveler of credit) from 1,600 to 2,400 weight."

In the distance the buffalo looks black, and their huge forms, when viewed sideways, appear immensely large. Their heads are carried low, and when retreating, their bodies appear small, but as soon as they turn broadside, and stop to look back, they suddenly loom up into gigantic proportions, often tempting the hunter to shoot when far out of range. The buffalo's endurance is so great that he will use up two ponies on a long moderate chase. They fear a mounted hunter more than any other object, and always retreat when seeing one, unless at a great distance. Any unusual object attracts the attention of stragglers, and they will often advance within long rifle range of a covered wagon. They exhibit great curiosity

at times, and solitary old bulls can sometimes be "flagged" like antelope.

The habits of the buffalo are varied, and become more so each year. Every season's hunt makes them more suspicious, and their range more contracted. They winter much further north than formerly, and the Wolfers often kill them in the dead of Winter nearly to the forty-ninth parallel. In this northern country they often perish from cold and hunger, and get snowed in, in the gullies of the mountains where they have gone to get out of the piercing cold winds and driving snow. Their skeletons have been found in large numbers, lying so closely as to touch each other in several passes in the northern Rocky Mountains. Were it not for the hills of the prairie kept bare by the driving winds, and the scant browsing in the bottoms, the buffalo would be compelled to winter further south, or perish. During the Summer they select the most fertile localities, and if unmolested, feed quietly in scattering herds; often standing side by side, brushing away the flies, or lying peacefully in the shade, like domestic cattle.

When feeding and migrating, the rear portion of a herd continually crowd those ahead, and push forward, snatching the tufts of grass as they pass; when their hunger is appeased, they fall back, and are succeeded by others, who in their turn jostle and push until all pause to rest. The country over which a large herd has passed is left entirely bare, with the exception of the numberless "chips." When a band comes suddenly upon a hunter,

they crowd to the right and left, forcing open a **V** shaped space, which rapidly grows larger until the buffalo are passing about fifty yards distant on each side; they then close behind him in the same manner, leaving him in the centre of a diamond-shaped space.

The run of the buffalo is a slow, heavy gallop, or lope, which is greatly increased in speed when they are pursued. A continual crowding and jostling is characteristic of a retreating band, many striving to force their way into the centre for safety; the old bulls run scatteringly on the outside of the herd, and will sometimes stop, rub their noses in the dust, scrape the ground with the fore feet, watch the hunter a moment, then gallop off again. The calves run by the side of the cows, and often under them; they keep pace with the herd without difficulty, and it seems wonderful that they are not trampled to death.

Buffalos run down hill without slacking their headlong speed, which the pursuing hunter is unable to do, as his pony has to travel at a slower pace; when ascending, the buffalo travel much more slowly, and the pony can then gain on them rapidly. The cows are the fastest runners, and it requires a nimble pony and a good rider to overtake them. Herds should be surprised, if possible; the hunter can then spur his pony into the band at the beginning; should they have the start, follow leisurely until reaching an ascent, then urge the pony to his utmost speed, and make a spurt, to and among them, or the chase will be a fruitless one. In September their

flesh is at its best and the weather pleasant for camping, but their skins are not of much value until November, from which time till January they improve in quality. On the Southern plains the hunter's pony can graze sufficiently to retain its strength, until October, after which time forage must be supplied.

Buffalo are hunted in two ways: they are still-hunted on foot with a heavy rifle, or run with horses and shot with the carbine, army revolver, or Winchester repeating rifle. It is a much more difficult matter to shoot well when mounted than on foot; rifles should not be cocked until an instant before discharging, and the finger must not rest upon the trigger except at the moment of action. Unless these rules are carefully observed, and the utmost caution taken, sudden movements and irregular motions in riding, will sometimes cause the gun to discharge, and the rider to shoot his own horse. In general shooting, hit the game high in the shoulder. Most of the hunters who shoot for market, stalk the game and fire at long range with the heavy Sharpe's rifle.

The large American horse is a rough rider, and unless thoroughly broken to the sight of buffalo, and perfectly trained to rough ground, is liable to stumble, and throw one over his head at any moment. There is but little danger with the Indian pony; he runs securely and smoothly, and knows how to "lay aside" a buffalo as well as his rider does. The most comfortable way to be mounted is Indian fashion, with double pad resting each side of the pony's spine, as a substitute for a

saddle. Moccasins keep the feet from slipping, and enable one to retain his seat with ease. If a saddle is used, the Spanish saddle with the California tree is the easiest ridden and the safest known. With the McClellan saddle, one frequently gets unhorsed; it answers, however, for ordinary riding.

When preparing for the hunt, saddle-bags and blankets are removed from the horses, and saddles are cinched tightly; the hunter then straps a well filled cartridge belt around his waist, seizes his weapon, mounts his pony, and is ready for the run.

It is quite a feat to shoot successfully from a horse's back, when on a dead run, and one should not attempt it unless he has been long accustomed to the saddle.

When making a surround, the herd is usually sighted from a distance, and the hunters approach from the bottoms, or "coolies;" it takes considerable time, but is generally successful if managed by veteran hunters. Should the herd become alarmed and stampede before the surround is completed, the hunters rush from concealment and endeavor to turn the herd. Then follows an exciting moment; the yelling of the hunters, rapid running and thundering tread of the buffalo, and constant reports of the guns, with horsemen half visible in a cloud of dust, form a strange, wild and exciting scene, that must be seen from a distance to be appreciated.

When one is in the excitement of the chase, he can have no idea of general effect; he singles out his buffalo, and runs it to the death, and should the chase

be a short one, he heads another band and obtains a second run. Buffalo usually fall on their knees with the fore legs doubled under, and often one horn is buried in the ground.

After the hunt, the hunters are called together by signal, and proceed to dress the game.

If the skins are saved they are taken off flat, like cattle hides, salted (except in cold weather), then stretched on the ground, driving stakes through holes in the edges; but if the flesh only is used, the best of it is cut in flakes and the horses are packed with as much as they can



Buffalo Chips.

carry. When killed for the market, they are quartered with the skins on, and wagons are used for their transportation.

HOW INDIANS HUNT THE BUFFALO.

Were it not for the buffalo, the Indians of the southern plains would be deprived of food, and also of bedding, clothing and teepees which the skins furnish; even now there is so much hunting by the Whites that the number of buffalo are greatly reduced, and the Indian's comfort, comparatively speaking, is already gone. On the

northern plains they remain yet in greater numbers, but their final destruction is inevitable everywhere.

"The great Fall hunt" is the Indian's harvest and annual feast. Never is he in such good spirits, never does he hunt with such excitement, and never is his insatiable appetite so gratified. In September, bands start out well provided with teepees, guns, ammunition and horses. They travel sometimes hundreds of miles before reaching a buffalo country, camping each night when darkness overtakes them. When finally reaching a place where buffalo are known to abound, runners are sent out to sight them. When they return with good news, the Indians, anticipating the hunt, are thrown into great commotion; they strip themselves of all clothing except breech clout and moccasins, and some deck themselves with feather head-dresses. Saddles are removed from ponies and riding pads substituted. Young bucks are sent out to choose desirable camping ground near water, and when a place is decided upon, squaws and trappings are sent for. The squaws get up the teepees, erect scaffolds for drying meat, and make all preparations needful to camp comfortably. The hunters that have started on their ponies ride until a favorable herd of buffalo is discovered, then, as well as diversity of country will admit, they slowly surround them at a distance. It is seemingly understood that they shall all dash forward after a certain length of time, and they come in a fury of speed, yelling inhumanly, and shouting the "whey! whey! whey!" to their horses.



INDIAN CAMP.

Each Indian singles a buffalo and follows it in every direction, and the form of the surround is lost. So perfectly trained is the pony, and so skilled in hunting is the Indian, that in every effort to turn or get away, the buffalo is pursued as it were in shadow, and unto death. When the first buffalo falls, the Indian looks forward, and if any scattering ones are seen, a second chase ensues. Old men and young bucks not engaged in the fight stand at specified distances with extra horses, and when those in the chase give out, the rider drives up to those in reserve and exchanges. The hunting is done as near camp as possible, and the squaws are sent for to skin and dress the buffalo that have fallen within reasonable distance. Each of the animals too far away to be reached, are partially skinned by the Indian who has killed them, and they will often tear the liver and heart from a buffalo while warm, and devour it with the relish of wild beasts; the best meat is cut out in flakes, and piled and tied on the ponies. They are cruelly overladen, and the meat hangs so low on each side that it usually drags upon the ground, gathering much dirt, which is never removed, but allowed to dry in; then, as if the poor pony was not sufficiently loaded, the Indian takes his seat upon the top of the meat and rides to camp, the pony staggering beneath the load. Both pony and rider become saturated with blood, and neither are ever cleaned. If the chase has been a successful one, the remains of partially dressed buffalos are left; but if not, they return, and the carcass is cleaned and meat



HUNTING THE BUFFALO.

taken to camp. Sometimes those who have not been successful in the chase will assist others in dressing game. At night a great feast commences, in which men, squaws, bucks, children, and even the dogs participate.

Singing, dancing and wild games are enjoyed, and the most immoderate eating that man or beast could be guilty of is indulged in. The intestines of the buffalo are considered the choicest parts, and are devoured by the Indians in a most disgusting fashion. They often eat, at this feast, the greater portion of the choicest meat of the first day's hunt, but on the second day and afterwards, meat is prepared for the Winter. Day after day the hunt is continued, a chase often being six miles long, until meat enough has been obtained for the Winter, or until intense weather puts an end to the sport.

Indians and Whites often hunt the buffalo in contest, and the scene is a most exciting one. The illustration represents the custom, and from the equal points of the hunters, might be called "nip and tuck."

The squaws do all the drudgery; they prepare the meat, and hang it on the scaffolds to dry. In damp weather it is often partially smoked by fires being made beneath it when drying. The squaws often skin the buffalo, and always dress and tan the robes. Few skins are used early in the season, except for teepees and lodges.

When the Winter coat of the buffalo is half grown, it is at its best, and the squaws begin to tan robes for trade and their own use. Very strong lariats are woven by the

Indians, out of the fine hair from the fore shoulders of buffalo, for which they get fabulous prices.

Some Indians use the army revolver in the hunt, some the carbine or Winchester rifle, while others use the bow. A warrior snatches an arrow from his quiver over the shoulder, springs the bow with a magic hand, and in an instant buries the arrow to the feathers in the flesh of the buffalo. The arrows are marked in colors near the feathers, so that each can be recognized, and the game claimed by the owner of the one which, by its position, indicates that death was caused.



CHAPTER IX.

ELK.

With size so noble, form so magnificent, and antlers so beautiful, the "Wapiti" may well be called monarch of the deer family. They, like the buffalo, are retiring west steadily, and few, if any, straggle east of the northern Mississippi river. Occasionally a band will run into Minnesota from Dakota, but their home seems to be in the Rocky Mountains, and the immense tract of country drained by the upper Missouri river. Many years ago they were common on Long Island, and we know of an old resident who has twenty pairs of elk antlers which were taken from game killed by his ancestors. Elk were once found in the Carolinas, and it is probable that the last on the Atlantic border were killed in the mountains of Pennsylvania.

They travel in bands, sometimes as many as three hundred, and when unmolested go in single file, making a long, straight trail which is easily followed. They fear the white man even more than the deer do, and their perfect sight and delicate scent often prevent the hunter from stalking them successfully. When shot at from ambush, they huddle like mountain sheep, then make a grand stampede for the hills. They are easily approached from leeward, under cover, and when sur-

rounded, a band often becomes confused and runs so recklessly that they can be fired at from several points.

At evening they feed in the pastures on the outskirts of the timber, and this is the hunter's best time. They like a mountainous country, far from settlers, but are sometimes found on open prairie, miles from the hills. They are seen also in burnt timber, where there is the scantiest of food, and among the heavy cotton woods, where they browse on willow shoots and young quaking ash.

The writer first saw the elk on the Mountain of the Holy Cross, one of the highest of the snow range of the Sierra Madre Mountains, and made a partial ascent with Dr. F. V. Hayden, who with his energetic engineers reached its summit. We were for three days, mounted and on foot, scrambling over fallen timber and boulders and camped there under greater difficulties than we experienced elsewhere. Our first camp was in a gulch, where we were forced to clear a level place to spread a blanket. Packs were dumped among bushes growing in wet soil; and, had it not been for the fine Eagle river trout, our first supper would have been a scanty one; many meals were spread on oil cloth and eaten in a drenching rain, which soaked the biscuits and set afloat the food on our plates. The lacerated shins and bloody legs of our ponies showed what their toil had been, and they were content to browse in the bushes like deer.

Much credit is due Dr. Hayden for his untiring energy at all times in seeking to discover anything that would be

of value to that part of science which he represents, and too much cannot be said in his praise of the persistent determination shown in ascending the Mountain of the Holy Cross, and many of the highest peaks of the southern Rocky Mountains. Many suppose that the United States surveying expeditions are a kind of Government picnic, but one has only to accompany a party one season to learn how many hardships and privations are endured. But to return to the elk; we first heard his whistle on this mountain, and, as he is somewhat of a ventriloquist, could scarcely tell from which direction it came; he soon, however, jumped from a quaking ash thicket, and if ever a hunter's heart bounded at the sight of game, ours did, as the magnificent creature went tearing through the saplings, all that was perfect in form, graceful in motion, and fleet of foot, were there combined, and we felt a momentary pang at the thought of wantonly destroying a creature so beautiful.

At night the bucks proudly parade the river bottoms in search of the does, and their call is anything but plaintive. A buck in close quarters, at this season, is an ugly customer to handle, and a hunter, to molest him in thick brush, places himself in great danger. To poke balls into him from behind a rock, at a distance, is a romance, but to give him a chance to charge like a bear, and get you under foot, is a reality.

When startled, elk throw back their heads until the immense antlers cover their shoulders, and go on a stiff-legged trot, covering the ground rapidly with tremendous



HUNTING THE ELK

strides; sometimes in beginning an ascent they gallop, but they always trot when surface will permit. The elk is very tenacious of life, and, in the words of the hunter, "will carry a heap o' lead." The long, patched ball shot from a heavy Sharpe's rifle is the best medicine for him, yet we have seen a bull elk drop dead from the single shot of a small Wesson rifle, lodged high in the shoulder. We have never seen the elk hunted with hounds, and should not make use of them under any circumstances. The elk licks like the white-tailed deer, and we have seen signs in the red clay spring holes of the Sierras which convinced us that he licked regularly. He is a fine swimmer, his cleft feet greatly assisting him in the water.

The immense antlers drop off in February, and new ones come, which attain full size in August. The horns, when growing, have a velvet-like covering, and are exceedingly tender; yet it is a curious fact that in rushing wildly through the timber they seldom bruise or injure them. When dropped in wet places, the antlers become soft, and are soon gnawed and disfigured by the rodents. The elk has large tusks, which are worn by the Indians as ornaments, and greatly prized as "good medicine." Many writers state that the elk only of the deer family have tusks, but small tusks have been found on white-tailed bucks in Minnesota; they are not common, however. In hunting the elk, it is best to hunt in company with some one, or within calling distance, as some of the elk are of monstrous size, and it is no small task for a person to dress one alone.

The game should be dressed as soon as killed, and the hunter ought always to be sure that life is extinct before using the knife. The carcass is quartered with the hide on; then the legs are skinned and lopped off at the knees and hocks. The skin can be used as strings to tie the quarters together, and a coat or folded blanket placed behind the saddle, and used as a pad, will protect the pony's back when packed. The flesh of the elk is good eating, rather better than venison. The skin is of little value, but is used by the Indians for making bull-boats and lodges.

CHAPTER X.

MOOSE.

The moose, like the buffalo and elk, have been so hunted by both Whites and Indians, that the species will soon cease to exist. Their heavy palmate antlers, large head, peculiar muzzle, long legs, deep cleft foot and shambling gait, distinguishes them from the rest of the deer family; and their retiring nature gives a fascination to the hunter that is not felt in following all kinds of game. When at bay, the moose fights savagely, striking in every direction with the fore feet, and occasionally lets out behind. That part of North America between the forty-fifth and fifty-eighth parallels may be called the moose country of this continent. They are still found in some parts of Maine and Minnesota, and are frequently killed by the Indians along the Northern Pacific Railroad. They have been killed in Summer as far south as southern Montana, and their antlers have been found in the province of Saskatchewan. Moose are great travelers, and often make their way into settled districts. They are migratory, but not as much so as the buffalo. In Winter they often go southward, returning to their old haunts in Spring.

In Summer, moose are found in the bottoms, near water. They are good swimmers, and stand for hours in deep

water to keep the annoying insects from their bodies, often plunging their heads deep into the water to secure aquatic plants, which are their principal food in warm weather. They also frequent cranberry marshes and tamarack swamps, and the most secluded places in the forest.

When their horns begin to harden, in August, they become restless, and visit the ridges at night. In the latter part of September the running season begins, and then they leave the bottoms for the hills; the bulls are then in the finest condition, and parade the ridges until their trails are plainly seen. For about three weeks they seem to travel continually, going the rounds regularly over their favorite trails and scraping grounds.

They have short cuts from ridge to ridge, and if the hunter will get in a tree, near a favorite crossing, at evening or at daybreak, he is likely to get a shot. It is a difficult matter to handle a rifle in a tree when watching for game, yet it is the hunter's best position, as the moose is not likely to see him, and less liable to smell him. A position should be chosen so a side shot can be had, but the hunter must not locate so far from the trail that he cannot view it for a distance both ways. When a moose appears, he is generally on a slow trot, but stops to listen on the tops of ridges. A heavy breech-loading rifle should be used, and the game shot high in the shoulder, in a line with the fore leg. Never shoot carelessly at any kind of large game; let the first shot be sent with precision, as it is of more value to the hunter

than several chance shots when the game has been alarmed, and going furiously away. A good still-hunter seldom wastes a cartridge when hunting in timber.

The moose is wary and secluded in his habits, and the hunter's best chance for a shot is when stalking unperceived. When fairly started and frightened, he makes a long run, and unless headed early, is seldom killed. The moose is often hunted with hounds, when the snow is crusted, the dogs being able to run over the surface, while the heavy moose breaks through, thus stopping him in his course, and often holding him so that he is readily shot, and falls an easy prey.

When the running season is over the moose collect in small bands, and again browse in the bottoms and on the side hills; they feed on many kinds of shrubs, though willow, poplar, hazelbush, swamp maple, and black birch are preferred. The first heavy snow-storm is a signal for all the moose to start out and scour the country, for Winter feeding grounds; they generally select a bottom with a good growth of sprouts, well protected from the cold winds by pine timber or hills. At this season they browse on tamarack, white pine, and a species of fungus found on maple and birch trees. The next deep snow finds the moose yarded.

The yards of the moose have been overdrawn by some, and imagination has led the pencil of the artist into great exaggeration. Pictures of yards usually represent them as regular snow pens, with vertical walls, shoulder high, covering a small space; while in reality they are

nothing more than a series of trails broken through some favorite feeding ground. A yard is often more than a quarter of a mile across, and over a mile in length; they are easily passed unseen by the hunter, unless his trail runs near or crosses the runways. There is a great difference in the appearance of the moose at certain seasons. In Spring they leave the yards hornless and emaciated, in fact, completely starved out, and wander about in this condition until the April showers start into growth the various forms of vegetable life; then, with the nourishing plants for food, they soon regain their strength, becoming fat and sleek; in September, with another set of horns, the bulls roam proudly about the forest, ready to fight a rival or defend themselves from the attacks of hound or hunter.

CHAPTER XI.

CARIBOU.

The caribou is the reindeer of America, and inhabits the country north of the forty-ninth parallel, though a few straggle over the line further south. Their sign has been seen in northern Montana, and in Minnesota. They do not seem to work as far south as the moose, and are very retiring in their habits.

They are found in small bands in Nova Scotia, where in the Summer they seek the cool spruce swamps to feed on lichens and fungi, and to escape the annoying insects. As cold weather approaches they go into the open forest, and browse on the ridges like deer. They make short migrations southward in Winter, returning to their old haunts in Summer. The caribou does not seem to agree with the moose, or white-tailed deer, as they seldom frequent the same localities.

If there is any animal that will animate an amateur hunter, or give him the buck fever, it is a caribou when he appears, tearing his way through the underbrush in deep snow. The habits of the caribou are like those of the white-tailed deer. When a new snow comes, they wander about browsing, and at night make their bed in the snow, in a bottom, or on the south side of a hill.

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During severe weather they often bed together under the shelter of evergreens. They always select a place where they have a clear view of the surroundings, and, unlike the mule deer, do not seem to use the same bed twice. As the snow increases in depth, trails are broken and used until the snow becomes very deep, when they yard in the same manner as moose. The best time to hunt the caribou is in the fore part of the Winter, when the snow is about a foot deep; then they travel but little, unless disturbed, and can easily be trailed up by a good still-hunter. After a new snow, one should rise early and search the feeding grounds; finding a trail, it should be followed cautiously until it becomes crooked, then one may conclude the animal is either feeding or selecting a place for a bed. Every object must then be carefully scrutinized, as a caribou, partially concealed by bushes or evergreens, may readily be mistaken for a stump, rock, or other object.

When crossing a hill never raise the head suddenly above its surface, and always look carefully ahead in the direction of the trail, before showing the whole body. In cold weather caribou are often found in the morning on the south side of hills sunning themselves; they stand apparently motionless, with their heads lowered and their backs humped, and often remain thus the greater part of the day, if not disturbed.

In pleasant weather, they feed in the morning and evening, like deer. When still-hunting, a heavy rifle is best, as the game is usually killed at long range. When

alarmed and headed, caribou invariably take the back trail, and when they are sighted, it is well to leave one man on the trail, and let another hunter stalk them from the opposite side; men who hunt regularly together can often get two or more shots in this way. If both are inexperienced, the hunter on the trail stands the best chance for a shot. Should a caribou be coming near, the hunter must keep behind the trunk of a tree, or stand as motionless as possible till the animal gets within range, then shoot quickly. Caribou are sometimes hunted with dogs, but short drives only are usually made. Indians trail a band into a swamp and make a surround, turning the dogs loose in the centre. When the snow is very deep, even with a heavy crust, the caribou can plow his way through, far out of the reach of the hunter, and the illustrations sometimes seen of hunters on snowshoes overtaking the caribou and cutting their throats, are misrepresentations. Their skin is the finest kind for hunters' clothing; it will stand water much better than buck, elk or buffalo hide, and will outwear any of them; when tanned it is as soft as kid, and the wind will not penetrate it. A thick coat should be worn under it in Winter, as its proximity to the skin gives one a cold and disagreeable sensation.

The barren ground caribou are small, odd-looking animals, with long, slim horns. They inhabit the Arctic regions only, and sportsmen are not likely to meet them. As they and their haunts are strange to the writer, no original information concerning them can be given



HUNTING THE WHITE-TAILED DEER.

CHAPTER XII.

WHITE-TAILED DEER.

The white-tailed deer is not as large as the elk or mule deer; it has a quick, graceful motion, and when pursued speeds with lightest of bounds, with white tail elevated to the mountains. He is hunted in many ways, and on the frontier at all seasons; but a hunter's greatest success is in the early Fall; yet so keen is this deer's scent, so easily is he alarmed and so acute is he to danger, that it takes a skillful hunter to kill him. This species is common all along the eastern slope of the Rocky Mountains, though it is doubtful if many cross the ranges. We found it as far north as the Kootenay Pass in the Province of Saskatchewan. The animal there is a long-tailed variety, called a species by some authorities; we have never seen an adult buck in the flesh, but the does and fawns are like the red deer, so it ought to be called a variety only. They range as far south as Arizona, and in some parts of Colorado have been found with the mule deer in about equal numbers. The deer of Minnesota are large and of two varieties; one variety is a large, long-legged, slim animal, called by the hunters, timber or upland deer, and the other is a short-legged, heavy animal, known as marsh deer or water buck. The variety in Florida is known as little red deer. All animals of a class vary individually in form.

The white-tailed deer are found in such a variety of cover that it is difficult to recommend any one gun to hunt with, but for general use the improved Winchester repeating rifle is the best. When watching wheat, бага patches, licks or scrapes at night, the shot gun is the surest weapon, yet our preference is the rifle. One of Eley's wire cartridges shot from a heavy gun with plenty of powder, will kill deer at a long distance. When shooting buck-shot at long range, the distance should be quickly calculated and the gun levelled proportionately high, as heavy shot falls rapidly. Many deer wounded with buck-shot, before snow falls, escape to the swamps, and unless they bleed enough to leave trace on the trail, they are generally lost to the hunter. A dog that usually breaks away on the first fresh trail he crosses and alarms the game, is not the best of company; if a hound, and one attempts to lead him, he is most obstinate when he should be most obedient.

In the north and east the white-tailed deer feed at night on the green grass, rye and oats that grow on the outskirts of the timber; during the day they lie close. As cold weather comes on, they browse on oaks, hazel-bush and willows, and in mid-winter on white pine and tamarack. In Minnesota they infest the бага patches of the Norwegians and Poles, and hang about the popple thickets, browsing until acorns are ripe. When the running season commences, they travel on the ridges at night, and feed on the acorns of the jack oaks. The bucks make scrapes in open woods, which they

visit at night to see if the does have crossed, and follow any trails that may be found. As the cold wind and drifting snow drives them from the open districts, they work back into the heavy pine timber and immense tamarack swamps; here they collect in bands and roam about, feeding on kinnikinic, hazel-bushes, oaks, pines, tamarack and a species of fungus which grows in the swamps. In the Spring they return to their old haunts in an emaciated condition, to recruit and have their fawns.





HUNTING THE MULE DEER.

CHAPTER XIII.

MULE DEER.

The mule deer though smaller than the elk is not second in grace of motion, or beauty of outline. His finely curved neck, elegant head and shapely antlers, make him a picture of beauty, and with delicately tapered limbs and light graceful step he is the poetry of motion. He is familiarly, though erroneously, called black-tailed deer by the Western hunters. The tuft of black hair at the end of the mule-like tail, might give him that name, but he is not the black-tailed deer proper, that inhabits the northwest. The mule deer can always be distinguished by its large ears, short legs and small tail. They drop their antlers much like the elk, and the new ones grow as quickly. These deer have bright red coats in the Summer, and present a most picturesque appearance, feeding in bands in the green pastures of the Rocky Mountains. The fawns are dropped in May or June, and are red with white spots dotted along their backs in parallel lines. The does have twins oftener than the white-tailed species.

The mule deer is really a mountainous animal, though the does secrete and raise their fawns in the thick willows and quaking ash groves of the bottoms. The bucks

retire to the Alpine summits in the Summer, to escape flies, revel in the rich green grass and drink from the rivulets that flow from the perpetual snow banks. The bucks are very curious about sound, often stopping to listen, thus giving the hunter a chance for a shot when they could easily have run out of range. They appear to be almost paralyzed at times. The writer has cut down three in successive shots, with a little Ballard, and once stalked seven in their bed, sheltered from rain under a spruce tree, near Taylor river, Colorado, killing one that never raised from its bed, and wounding another. Trailing up the band for another shot, they were sighted half an hour after, trotting Indian file up a hill; but before we had time to whistle and stop them, a panther leaping from a large pine carried one to the ground, handling it as a cat would a mouse. He worked his prey from sight under cover of logs, and having but a few light cartridges, and being miles away from camp, we returned to where our pony was picketed, jumping on the way the wounded buck. We never feasted upon his flesh, as in our absence the party had broken camp, and had two days the start of us far in the mountains. It took three days to trail them up, and when within two hours' ride of the camp, an old hunter, who had been on our trail all day, shouted a welcome, and grasping our hand said: "I know it's no trick for you to find camp, but I was afraid you had tackled a "grizzly" with that pop gun of your'n." Mule deer feed on willow and quaking ash sprouts, when the frost has

killed the grass. When rising from their beds (the bucks rest but little in the running season), they go direct to the nearest water to quench their thirst, and then commence feeding. They are often found early in the morning on the sunny side of hills or mountains; but the hunter is usually most successful by watching their browsing grounds at evening.

If one attempts to still-hunt them in the bottoms, nine out of ten will see or smell the hunter and bound away before he is aware of their presence. A hunter on the hills watching the valleys below is generally successful, and one should move to windward as well as the surface will allow, advancing cautiously and endeavoring not to cover too much ground. Old hunters slay the bucks at their favorite crossings, as they roam impatiently, with swollen necks, on the trails of the does; at such times they are easily taken. When standing motionless on their trails the hunter will sometimes have them run unwittingly upon him; it is then best to let the doe pass and shoot the first buck just before it gets abreast of him. The others often stand, panic-stricken as it were, and give opportunity for another shot; sometimes they will rush past, and at other times take the back trail. Just in this situation the Winchester proves its best qualities, and, if well handled, nearly every cartridge will stop a deer. Three men can often hunt together successfully, as follows: During the middle of the day when deer are resting, one man should take the bottom of a ravine, and beat the thickets, while the others follow the hills on

the sides of the ravine, taking parallel courses a little in advance of the driver. Thus many running, and a few standing shots can be had, as the deer when started from a bottom always take to the hills, and will often stop on the first open space to view the hunter before taking a long run. They do not lick as well as the white tails. We have taken but two at licks, and those were natural ones, on the South Platte and Willow Creek, in Colorado. The bucks are large and heavy, and, except in Minnesota, exceed in weight the white-tailed species.



Deer Suspended.

The haunts of the mule deer not being favorable, they are not hunted with dogs, except early in the season, in thick cover. In Fall and Winter they can be killed most successfully in open country by still-hunting.

Deer should be dressed as soon as killed, and may be handled as follows: When practical, suspend it as seen in the illustration, make a longitudinal

cut through the skin, from the tail to the front of the breast; skin back from the incision a few inches, then

run in the knife at the first ribs, and after making a slight cut upwards, insert the first and middle fingers of the left hand on the sides of the knife, clearing the way for its course as you lay the deer open. Never attempt to open from the vent, as when half done the contents of the thorax will fall out. If no convenience offers for suspending the deer, bend its back over a log or rock, and work thereon. When entirely dressed, drag it away from all objectionable remnants, and straighten the deer so it will freeze in a convenient position for packing. In this manner one can handle a deer and raise it from the ground; otherwise it would be a difficult task without the assistance of poles.





HUNTING THE ANTELOPE.

CHAPTER XIV.

ANTELOPE.

The antelope, or prong-horn, is the shyest of game, and is found along the eastern slope of the Rocky Mountains, and on the great plains, from the British Provinces to Mexico. They are seen in greatest number in the Province of Saskatchewan, and in northern Montana, on the limitless rolling prairies, where they rove in large bands. They frequent the most barren and desolate prairies, subsisting on the scanty growth of dry buffalo grass. In the Summer, they ascend to the top of the highest bold mountains and table-lands, often reaching an altitude of twelve thousand feet. Prong-horn is a name given the antelope because of their curious shaped horns. The ends of the horns commonly turn inward, and for an inch and a half from the tips are nearly horizontal; the tips point directly towards each other, but the horns of no two antelope seem to curve alike. The old does' horns are about an inch and a half long, one often being shorter than the other; some are nearly straight, while others turn forward, and are slightly hooked. These wild creatures are always on the lookout for danger, seldom feeding in a "coolie" or valley for any length of time without ascending high ground to take a view of the surroundings.

Their favorite haunts are the foot-hills of the Rocky Mountains and the table-lands on the lower ranges. They often cross the timber, like deer, from one mountain range to another, but the open country is their home. Their curiosity, for which antelope are noted, often proves fatal to them, as it gives the hunter many shots which he could not get in any other way.

They are particularly curious in the rutting season, which commences late in September, and can then often be flagged.

The best way to flag an antelope is to raise slowly a piece of cloth, attached to a wiping-rod, until it is about three feet from the ground; a slight breeze will then flutter it sufficiently to attract his attention. He will advance for a few yards, then stop, watching the flag closely, and, if nothing alarming is seen, will continue to approach, sometimes so slowly, however, as to be very trying to the hunter's patience; yet, to be successful, one must wait until in range for a good shot.

A heavy rifle is needed for hunting the antelope. On the southern plains, Sharpe's rifle, calibre 44, with patched ball and telescopic sights, is most used by the hunters; the same rifle, with plain or peep sights, may be used successfully. There is no kind of game so liable to be undershot as the antelope, the clear atmosphere where they are found being very deceptive. An animal within three or four hundred yards seems much nearer, and will be undershot at least two feet if the hunter does not calculate the distance carefully. When doubtful of

distance, chances of overshooting should be taken. Ascending to the top of a hill, one will often discover a band of antelope feeding below, but is sometimes disappointed in not getting a shot. They are quick to scent danger, and the first one that notices the approaching hunter gives its peculiar signal of warning, and the whole band run quickly in a body. An old buck, generally the largest, will step out a few paces from the rest to make observations, linger a moment, stamp the ground impatiently, and then bound away with the speed of the wind, followed by the entire band. As they dash away over the diversified country, they can only be seen at intervals, crossing the knolls of the prairies, and the white patches on their bodies, which appear to be moving lines of white objects, is the last vision one has of them as they pass out of sight. Large, well-trained greyhounds, run in pairs, will often overtake and pull down antelope; but ordinary dogs, even under favorable circumstances, are far outrun by them. It is laborious work hunting the prong-horn in the mountains, yet, owing to the broken condition of the ground, there is a better chance to stalk the game, and one is more successful than on the plains. Both sexes of the antelope have a very peculiar sneezing note, which they give when surprised, or when their curiosity is aroused, and it often tells the hunter of their presence. Once, when in camp near the Horseshoe Mountain, our party suddenly came to a realizing sense of the fact that the mess-boxes contained only bread and bacon, and accordingly resolved to "go for" antelope

the next day. In the morning we caught our ponies and started for the hunting ground on the Horseshoe. When within half a mile of where we intended to hunt, a continual bang! bang! bang! was heard. It ceased very suddenly, and, going over a knoll, we discovered a disconsolate Dutch prospector sitting on a rock, with an empty cartridge-belt lying across his lap. He was the picture of despair, but when he saw some needle-gun cartridges in the belt of one of the party, a gleam of hope lit up his forlorn countenance, and he said, with more pathos than can be described, "Mine Gott, can you give me cartridges?"

They were grasped eagerly when given, and without a "thank you" he trotted away over a hill. We soon sought cover among the rocks, to shoot passing prong-horns, but had not been concealed more than ten minutes before bang! went the Dutchman's needle-gun and a ball whistled by, striking a rock in close proximity. Then came a band of six or seven antelope, tearing over a hill; as they passed we sent two balls which disturbed quite a quantity of hair on the back of one and "dumped" another; it was able to jump up, however, and disappeared, apparently none the worse for the ball. During the day two more were knocked down but none bagged. While sitting on a rock examining a Ballard rifle, calibre 38, and endeavoring to determine its merits as an antelope gun, the alarm note of an antelope was suddenly heard, and the head and shoulders of a doe were seen about fifty yards distant, suspiciously watching one of

the ponies. Drawing a bead on her and sending a ball into the breast, she settled down behind a rock, as we supposed, stone dead; but imagine our surprise when approaching the top of the rock, at seeing her going away, on three legs, at a furious rate. While saddling our ponies a band appeared on the crest of a hill, when bang! again went the unfortunate needle-gun, and down from a rock toppled the leader of the band. Riding to where the buck had fallen we found that the ball, by accident and not by any skill of the hunter, had struck fairly between the eyes and shattered the skull.

The next day we visited the same grounds and soon killed two antelope, one of which was shot four times before it was killed. If a deer had received any one of these wounds, there is no doubt it would have fallen at once.

The above experiences proved conclusively that an antelope gun should burn over eighteen and one-half grains of powder and carry lead in proportion.

CHAPTER XV.

BIG-HORN, OR MOUNTAIN SHEEP.

More numerous than is generally supposed are these wild creatures, and they inhabit a wide range of country. They go as far south as New Mexico, and are common in the mountains of Colorado. They haunt the tops of bald mountains, beneath which are so many jagged rocks, weird precipices and dangerous proclivities, that the hunter cannot reach them as often as other game. They have beaten trails to the valleys where they go at night to drink, and they are sometimes found in the morning and evening at licks. There are favorable localities on high mountain-tops, where they stay the greater part of the year; in severe weather and deep snow, they descend to the foot-hills and "hog-backs," where they feed like deer. Large bands are found in the Sweet Grass Hills, a circular group of mountains rising from the level plain one hundred and eighteen miles east of the base of the Rocky Mountains, on the northern boundary line of Montana.

To kill a big-horn is an achievement in itself. Unless a hunter should by chance catch one "napping" in a valley, he must have unusual skill, persistent patience and genuine pluck, to climb the rocks and find them. A heavy rifle is required for long range shooting, and the hunter's eye must be keen to see the sheep among the gray rocks. It is best to watch from an elevated point,

wherever fresh "sign" may be found. The sheep are very keen-scented and sharp-sighted, and, if under cover, the hunter can see them before being observed as they start out to feed, and stalk them slowly and carefully, he has a fair chance of a shot. The writer once stalked a band of sheep on a table-land, without a particle of cover, crawling through the dust for half an hour, and being obliged to stop every few yards, as the nearest animals raised their heads from grazing. They at first looked suspiciously, but in a few moments began feeding, having perhaps taken the fringed buck-skin shirt worn, for a coyote. Raising on the knee to shoot, half the band broke for the rocks; but the leader continued to feed. He soon scented danger, however, jerked his head upward, and faced square around (a habit of both sheep and antelope), but, before he could spring away, a ball struck him in the centre of the breast, and he dropped dead in his tracks. At the crack of the rifle the remainder of the band huddled; as they retreated, three flying shots were sent after them, which dumped two four-year-old bucks. The carcass of the ram was dragged to timber, and hung to a tree; the heads of the others were cut off, and their bodies covered with rocks. Returning to the place two days after with a comrade and ponies, to pack the game to camp, we found the ram safe in the tree, but the wolves had made a clean sweep of the beheaded sheep. Sometimes, when repeated shots are fired from cover, sheep, like antelope and elk, will become panic-stricken, but usually they bound



HUNTING THE BIG-HORN.

rapidly away, and the hunter has to use the utmost caution in stalking them. They are very tenacious of life, and have been shot raggedly through the base of the horn, near the skull, without affecting them in the least. The heights to, and the precipitous rocks over which, these creatures will climb, is truly marvelous. An old hunter once said, "They will stick where a fly could not light, and I've seen 'em do it."

Their feet are deeply cleft, and when leaping or running, the toes are extended to the utmost. They will make headlong runs over scattering snow-banks or rocky mountain sides, and leap down cliffs from rock to rock, galloping over loose stones, where you would not think a secure footing possible. Once on the Buffalo Mountain in Colorado, when mounted, we tried to turn an old ram from his course on a table-land. He was hard pressed, but reached the steep mountain-side a few rods ahead, and, without slacking his pace in the least, made a clear leap of thirty-five feet, striking below, sliding, as he landed, about fifteen feet over mud, snow and loose stones. Then, by successive leaps, and at the same pace, he covered a declivity of six hundred feet. The sheep and lambs climb the mountain with the same agility as the adult ram, and will follow wherever he may lead.

Many fabulous stories are told of these sheep; one, that the rams stick the points of their horns into the crevices of the rocks in climbing; and another, that they have a habit, when pursued, of throwing themselves from immense heights, and alighting on their horns



HORNS OF THE ROCKY MOUNTAIN SHEEP.

uninjured. Both are imaginative, and entirely against reason. The illustration represents the horns of one of the largest rams the writer ever killed. They are 37 inches long, spreading at the tips 17.50 inches, and each horn has a circumference at the base of 14 inches. They are solid nearly half the length from tips, are thin at the base, and are connected to the scalp by a tough, hard membraneous skin.

The bone of the horn is large, fully developed, and porous, particularly at the small end. The fronts of the horns near the base are worn smooth from being rubbed and butted against the rocks, a habit the old bucks seem to delight in.

The average weight of an adult ram is one hundred and forty pounds, though some have been killed that would turn the scales at one hundred and fifty-eight pounds. The does weigh from ninety to one hundred and twenty pounds. The above figures indicate the weight of animals from which the viscera only had been removed. The habits of the big-horn are more like those of the goat than the sheep, having also its stiff-legged lope. The hunter often experiences much difficulty in getting sheep to camp when killed, but if he will begin early in the season and train a good mule or pony to pack game, either can be taken into almost any part of a mountain. Game can sometimes be rolled or dragged down side hills to the bottoms, where accessible game trails are usually found. The flesh of the mountain sheep is the most delicious of all wild game.

CHAPTER XVI.

BEARS.

There are three species of bears in the United States, viz.: the grizzly, cinnamon or brown, and the black.

Bears are often seen in the mountains when still-hunting deer and elk, as they wander about in the open country above timber line, often reaching an altitude of 12,000 feet above the level of the sea. A heavy breech-loading rifle should be carried in such localities. A hunter, on seeing a grizzly, should find cover among the loose rocks, then keeping well out of sight and calculating the distance carefully, approach till within about one hundred and fifty yards, and shoot when opportunity offers. If bruin is not hit, he will stop and listen, thus giving chance for another shot; continue to shoot until he dumps or scampers out of sight. A wounded bear keeps his footing as long as possible, and never plays possum; when he falls he is severely or fatally wounded. A grizzly should be given plenty of time to die, for if approached before life is extinct, he is a dangerous customer.

The stories that are sometimes told of terrible adventures with bears would lead many to suppose that they were the most formidable and dangerous of animals, and

that hundreds of hunters fell victims to their ferocity annually. When wounded or cornered, it cannot be denied that bears fight desperately, but they get away whenever they can, particularly the grizzly.

The writer once saw two grizzly bears down a cañon, and tackled them with a small Ballard rifle, calibre 38; one was hit low behind the shoulder, and mortally wounded, and if the other received the shot, aimed at the spine, it must also have proved fatal. Both took to cover in dwarf willows and spruce trees, but being alone, and having a small rifle, it was not thought best to trail them up. Lieut. W. L. Carpenter tackled a grizzly in heavy timber, and at the first shot with a solid ball from a U. S. needle-gun cartridge, shattered the first cervical vertebra. As bruin sat up on his haunches making savage faces, he gave him three balls in the back of the head, near the occipital bone; two were Mead's explosive balls, which never reached the skull, but were found, battered and flattened, in the muscles of the head. There was also a small round ball in the foot; it had healed over, and was probably shot from an Indian's pea-rifle. A New York paper made report of this bear, and stated that the explosive balls blew off the top of the skull. The writer can declare this to be a great exaggeration, as he prepared the whole skeleton, packed it to Denver, and it is now at the Smithsonian Institute. J. T. Gardner, U. S. Geological Survey, killed a very large grizzly on Long's Peak, Colorado, with a single ball from a Ballard carbine, calibre 44,

which passed through the bear from the back. The miners and Indians kill a great many bears, and we once met a trader in the Rocky Mountains with three ponies packed with grizzly skins. The above instances are cited to prove that these bears are commonly slaughtered in their haunts; but in attacking, or following them up when wounded, great judgment should be used.

There is a light-colored, short, heavy, cross-grained bear found in the southern Rocky Mountains; he is known as the cinnamon grizzly by zoölogists, and as the silver grizzly by hunters and miners, who say he is a hybrid of the cinnamon and grizzly. The writer thinks he is only a variety of the grizzly. In his anatomy there is not a single resemblance to the cinnamon bear. In the Sierra Madre they are very common, a hunter often seeing seven or eight in a day on the Alpine summits. In Summer they are found near the perpetual snow-banks of the highest peaks, where they feed on grasshoppers and other insects, grass, roots, and such animal food as they can get. When opportunity offers, they do not hesitate to relieve the hunter of mule deer, and mountain sheep. The native red raspberry and gooseberry of the Sierras is greedily devoured by them, but their chief food is the root of the quaking aspen; numerous holes are often found from which the fibres have been taken, and the claw-marks of bruin can be seen in the earth and on the trees.

They wander about the mountains until the snow drives them to the valleys and lower regions, where they remain



GRIZZLY BEAR AND DEER.

until severe weather ; then they hibernate in caves or among the rocks and fallen trees, where the snow will drift over them. This variety has one and sometimes two cubs in a season.

The cinnamon or brown bear is the most rare of the ursus family in the United States, and is a widely distributed species. He is a tall, lank-looking animal, uncommonly spunky at times, and rather more to be feared than the grizzly. The writer has seen but one cinnamon bear killed ; this was surrounded in a cañon, and cut down by five rifles and numerous revolver balls. She had one cub, which was killed at the beginning of the fray. Some think that the brown bear is a variety of the black bear, but that is very doubtful, for his color, head and long legs are entirely unlike that species.

The black bear is the most common, being found throughout the United States and southern British America. In Arkansas and the Rocky mountains they are very large, but in the eastern United States they are much smaller. They are hunted with dogs, being treed and shot, and are also trapped. The fur of the black bear is the best, and is used for coats and robes. Their flesh is dark colored, and strong, but many epicures pronounce it fine eating.

The polar bear inhabits the Arctic regions, and is best known to the Esquimaux in his icy home. They feed on seals and fish, which they are very expert in catching.

CHAPTER XVII.

THE FOX.

To follow reynard with "hounds in cry" is by no means the least exciting chase that a hunter can indulge in, and his many traits, such as doubling, jumping creeks, running on high stone walls and fallen trees, only add fascination to the chase, and make the hunter more persistent to secure his game. The red fox is the shyest of his kind, and is found throughout the United States and Canada, and there he seems likely to exist for many years to come; his cunning protecting him from the gun and trap of the hunter and farmer. He is particular about his diet, and feasts on the fattest of chickens and turkeys in the land.

The gray fox is found throughout the United States and far into the British Provinces. This species exists in greatest number on the limitless prairies of Dakota and Montana. In the woods of Minnesota and Wisconsin they are also quite common, but in the New England States they are seldom seen. They are less shy than the red fox, and are hunted with hounds.

The prairie swift or kitt, is the most agile and pretty of its genus. It is as fleet of foot as the gray squirrel, and similar to it in motion, as it runs on fences

from wood to wood. They burrow in the prairies, where whole families are often seen sitting at the mouth of their holes, ready to bolt at a moment's notice. In such places they are easily stalked, and killed with a rifle; where there are sage bushes for cover, a shot-gun can be used. A heavy, double-barreled gun loaded with No. 1 shot is the best for general fox hunting, but over heavy snows with non-success, it often seems the heaviest of loads. The kitt is a smart little hunter, and with a field-glass one may often see him secure his game.

CHAPTER XVIII.

RABBITS AND HARES.

The gray rabbit is common in New England, along the Atlantic coast, west into the Rocky Mountains, and probably to the Pacific coast. In northern Minnesota this species is seldom seen, but the common or Canadian or white hare is very numerous. Some of the rabbits in Colorado are perfect martyrs to fleas; when shot, their ears are often covered with them, and their eyes sore from their bites.

The best time to hunt the gray rabbit is after a light snow; the runways should be manned, a hound turned loose, and silent watch kept for the rabbit. When started, he usually runs in a circle, or, if the woods are narrow, doubles on the dog, and returns to the place from which he started. It is best to have a slowly running dog, for the rabbit will hole if hard pressed, particularly in the Winter. In the Fall, when rains have settled the leaves, the rabbit can be successfully hunted with dogs, and his "cotton-tail" makes a conspicuous mark for a running shot; a shrill whistle will bring the rabbit to a stand, if the hunter prefers a sitting shot.

When still-hunting, a sharp stamp on logs or brush will often bring to sight a frightened cony. A light double-

barreled gun charged with three drachms of powder and one and a quarter ounces of No. 6 shot, is suitable for good shooting. The white rabbits or hares are becoming scarce in many places; they breed slowly, having but two or three young ones in a year. In the settled districts they generally frequent tamarack swamps. They are hunted with hounds, and the Eastern hare will seldom, if ever, hole; but in Minnesota, in severe weather, the hares will often burrow, and remain for the day. They are usually found in willow and popple shoots, and the hunter is first attracted by the black margins of their ears and their dark eyes, as they peep from cover of blinds. On a white ground they are good "bull's-eyes" for close shooting. Near Spunk and Moore's lakes, in Minnesota, the writer has killed fourteen in less than an hour, with the Winchester rifle.

Rabbits should be dressed as soon as killed, else they soon spoil in pocket or game-bag.

The first trail the writer ever followed was that of the gray rabbit, and it led him, tired and foot-sore, from burrow to burrow, through brush and over fences and stone walls, without having the slightest suspicion that the tracks being followed were made the previous night. Later, obtaining a short double-barreled gun, a ferret and some beagle hounds, we went to the woods to some purpose. The cruel little hunter, Dick, the ferret, was sent into every hole where trails were seen; occasionally when a rabbit would give us the slip by bursting through the snow from some side hole, the hounds would

follow in ringing chorus and maddening haste. The rabbit would hole in the first place reached, and then merciless Dick would go down the burrow and hustle out the doomed cony into a net. He was eagerly seized by the hind legs, and his neck broken from a blow behind the ears with the edge of the open hand.



CHAPTER XIX.

SQUIRRELS.

The squirrel, like the cat, may be said to have nine lives, for if he can fasten but one claw in a limb he will not fall until perforated with shot holes, or until his hold is cut loose by a crack shot from a rifle. When a squirrel is treed, it is useless to run about looking on every side for him, as he flattens his body closely to a limb or the trunk, and manages to keep the latter between the hunter and himself. Sometimes he will run out on a large limb and lie so close, that only his nose is visible, and the hunter can shoot in vain. It is advisable to have one of a party of squirrel hunters carry a rifle, for in shooting a little low, a squirrel can be "lifted" from where a shotgun could scarcely reach him. When two or three excited hunters are aiming to get the first shot at a treed squirrel, if one has the presence of mind to select a good position and stand still, the squirrel will be frightened on to his side of the tree, by the hunters opposite, and sure aim can then be taken.

The best time to hunt squirrels is when they are gathering their winter store of nuts, acorns, etc. They commence when nuts fall to the ground, and in their eagerness to secure a supply, come out from their hiding places

many times during the day. Later in the season, when nuts are scarce, the hunter should be on the ground at daylight, to shoot the squirrels as they come forth to bask in the first rays of the sun. The habits of the fox squirrel or "red bones," are similar to those of the gray squirrel, and they may be hunted in the same way.

If the squirrel hunter prefers a breech-loader, the Ballard rifle is the best; if a shot-gun is used, it should be of small bore and solid, charged with three and one-half drachms of powder and one and one-fourth ounces of No. 6 shot. Guns ought always to be clean, and tight-fitting wads used.

CHAPTER XX.

PRAIRIE GROUSE.

The pinnated or prairie grouse is *the* game bird of the United States, though many of our Eastern sportsmen know him only as he appears with stretched neck and mutilated body, hanging in the market. In life he is a beautiful bird, and most graceful in movement on his native prairie, in flight resembling the meadow lark. He flaps his wings for an instant, then sails for a few seconds, flaps again, sails, and so on, making quiet and graceful but rapid flight.

When flushed from cover, he makes a great noise ; but when undisturbed, leaves the ground quietly like the ruffed grouse. He is fond of cultivated land, and, like the quail, is gregarious.

Early in the season the bevies of pinnated grouse keep in cover, and good bags can be made, but later in the Fall they become wild, and frequent more open fields ; then the sportsman must load heavily, hunt carefully, and bring down the birds at long range. An old cock grouse in full feather is the toughest of American game birds, and on a windy day the hunter needs a quick eye and a good gun. On the prairie, one should use the pointer and a heavy breech-loader for grouse hunting. In many



HUNTING PRAIRIE GROUSE.

localities the pinnated and sharp-tailed grouse are found together in scattering flocks; and in suitable cover, with good dogs, one can shoot them to his heart's content.

The illustration represents the kind of locality where grouse are found, and the manner in which they are most successfully hunted.

In hunting prairie grouse, more comfort is found and pleasure experienced by making up a party of four or five, and chartering a settler's wagon, better known on the plains as a bull wagon, or freighter. This will accommodate sportsmen, dogs, and all paraphernalia. As good water is not always obtainable, it is advisable to take three kegs of water; they can be slung from the axletrees, two behind and one in front. An A tent with fly should be taken, to afford shade from the sun, and shelter from the rain. Four persons can sleep in the tent, two in the body of the wagon, and another can have a dry bed by slinging a hammock under the wagon; in this manner a party can camp comfortably in the best of sporting grounds.

CHAPTER XXI.

SHARP-TAIL GROUSE.

This bird is more generally known as the pin-tail grouse, and is very common in Minnesota, west to the Rocky Mountains, and north into the British Provinces. In the "Whoop up" country on the upper Missouri and Milk rivers they are found associating with sage hens in immense flocks, and the startling *cuck, cuck, cuck*, of the rising pin-tails, is about the only sound that breaks the stillness of the Northern prairies. They are often killed as far south as Clear Creek and along the South Platte river in Colorado, and hunters sometimes shoot them much further south. Pin-tail grouse are usually found in bottoms where there is brush, or on the prairies near the edge of woods. They will tree like ruffed grouse, and retire to the forest to "bud" in Winter. The best mode of hunting them is with a well-trained pointer or setter, and they afford more exciting sport than the prairie hens. Their flesh is not as gamy as that of the pinnated species, being medium between that and the ruffed grouse; the young of the pin-tail grouse are excellent eating, and they make an agreeable change from the dry meat of the antelope when crossing the plains.

CHAPTER XXII.

RUFFED GROUSE.

There are few who shoulder a gun that have not been startled by the sudden whir-r-r-r-r of the ruffed grouse, and heard him drumming from his favorite station on some log, rock, or ledge.

The ruffed grouse, or partridge of New England, is the shyest of game birds, and in Autumn it takes a well broken dog to approach within pointing distance.

Early in the Fall they sometimes work out into open places, and sprouts, where they are found in scattering bevvies, feeding on the leaves and berries of wintergreen and such insects as come in their way.

Later in the season they retire to the swamps, where they eat the bulbs of the skunk cabbage, cones of the alder, and buds of the white birch and poplar trees. At such times their backs are very bitter and the bird is unpalatable. In the Winter, during moonlight nights, they resort to the orchards and eat the buds of sweet apple trees. In severe weather in the North the ruffed grouse, when flying, will sometimes pitch into the snow and remain for several days without food. In some parts of Minnesota they are very numerous, and when hunting deer, are passed by without being disturbed. In the

northern United States they tree, when flushed, in small white pines and hemlocks, where they sit with outstretched neck, raised crest, and plumage drawn closely to their bodies. At such times they never make the slightest movement until taking wing. Should the hunter see one spread its tail, raise its plumage and throw out its ruffs, he must shoot quickly, or the bird is gone. When flushed, the ruffed grouse makes a great noise in its flight, but when not frightened, it will leave the ground as noiselessly as a hawk. A treed grouse usually sits erect on a limb, near the trunk of a tree, making a good shot for a rifle.

For such shooting, the improved Winchester rifle, model '73, is recommended, as it is easily loaded, and the cartridges are light to carry. A medium "shot," with a little practice, will cut the head or neck of a grouse nearly every shot, leaving the body in fine condition.

In the East, the double-barreled shot-gun is best, for the partridge is generally killed when on the wing. Three or four drachms of powder, and one, or one and a quarter ounces of No. 8 shot, or No. 7 shot (according to the bore and weight of the gun), is a suitable charge. If a bird is going from you, shoot straight for him, but a little high; if he is crossing, and offers a side shot, shoot quickly and well ahead, for when once fairly started, the partridge goes through the air with great rapidity.

CHAPTER XXIII.

QUAIL.

The quail is common from Massachusetts to Florida, and from the Atlantic coast to the Western prairies. They are gregarious, except in the breeding season. The quail is the most prolific of American game birds, often having two broods in a season; small birds are often killed late in November. When the young are hatched they soon run about, and grow rapidly; when grown, they collect in a bevy, generally roosting in a ring with their heads turned out; their favorite resting place being the bottom of a swamp, or under the lee side of a fallen tree or stone wall. Late in the Fall they retire to the swamps, and feed on the large seeds of the skunk cabbage, which they eat greedily.

Bob-white varies in his neat little dress, in the different localities which he inhabits. In Texas he is small and dark-colored, in Florida a trifle lighter and larger, in Massachusetts, and west to Illinois, he is a large, plump, light-colored bird. In October the shooting season begins, the flocks are scattered, the odd birds are put up from hedges and the margins of swamps, and shot before the pointer and setter. The pointer hunts more carefully than the setter, is mild, and much more easily handled.



A light double-barreled gun, loaded with three drachms of powder and an ounce of No. 8 shot, is best for shooting quail. When a bevy is suddenly flushed, the hunter must not bang away recklessly at the thickest of the flock, for in this way scarcely a bird is ever killed; to make a good bag, a proper distance should be chosen and a bird selected for every shot. Quail are generally found in open country, and they need not be split with a charge of shot a few yards from the muzzle of the gun; unlike the snipe that go twisting about, they fly straight and give the best of shots.

It is amusing to see a wounded quail try and conceal itself from the hunter; the simple bird squats closely to the ground shoving its head under leaves or twigs, and, with the whole body exposed, seems to think itself secure. Quail are the most strongly scented of game birds, and a good dog will smell them a long distance if the wind is favorable. When a bevy is scattered, the single birds will play possum by lying close; a dog will often run within a few feet of them without discovery, and the hunter will often kick them up when walking in thick cover. This almost proves that the quail can be devoid of scent at times, though it seems as if the quick, keen nose of the dog ought to detect the breath of the bird. This deceptive habit, however, is but one of many practised by birds and animals to evade the hunter. The flesh of the quail is deliciously delicate, and heads the list of American game birds.

CHAPTER XXIV.

GEESE AND BRANT.

On the prairies, the wild geese collect in large flocks on the wheat stubbles; they feed and wander about like tame ones, going to the water to rest at night, and where there are large ponds or lakes, the Canada goose and many of his companions may often be found. On the Atlantic coast, wild geese resort to the lettuce beds of the bays.

When a flock of geese are found, their course of flying must be noticed, and the hunter should locate as near them as possible, before daylight. If there is sufficient cover, dress a boat with grass, and lie in the middle of a lake with decoys, or get on some point under cover of a blind, and watch for the coming light. The break of day is the signal for a general dispersing of water-fowl, and one can hear the "honk! honk!" of the goose, the "curr-r-r-ronk!" of the brant, the "quack!" of the black duck and the mallard, the plover's whistle, and the sharp notes of the yellow-leg, and other sandpipers. The various flocks take wing, passing and repassing previous to settling on the feeding grounds, and as they come in easy range of the gunner, many geese and other fowl are cut down. In aiming for a goose coming straight towards a gunner, the shot will take better effect if the

bird is allowed to just pass by. In shooting from a box, one can often let birds light to the decoys, and cut them down as they are going away.

Geese collect, to dress their plumage, on sand-bars in some of the great rivers of the West, and while thus occupied, are good marks for the rifle. Geese rival the loon in diving and swimming under water, and, when wounded, a shot should be given at every opportunity, as they will evade the gunner when there is cover or sea-room.

The brant seems to be a connecting link between the duck and the goose. They are clumsy divers—in fact, will not dive at all unless wounded and pursued. They sit high on the water when feeding, and resort to flats where the bottom can be reached without diving, their principal food being sea-lettuce and small marine animals found in mud and among eel-grass. The brant fly in figures like geese, but not as regularly, and will come readily to decoys. They fly slowly compared with the goose, and are more easily killed. To hunt the brant successfully, put out a “box” on the flats where they are known to feed, set out decoys (live ones, if possible), and at daybreak be ready for shooting. For geese and brant a heavy double-barreled gun is desirable, but ought not to be of sufficient weight to inconvenience the gunner in a cramped position. Use a large charge of powder (not enough, however, as to cause the gun to recoil), and but little shot in proportion, so that a pellet, if it strikes a bird, will go clear through it.

CHAPTER XXV.

DUCKS.

Thirty-four species of ducks have been killed in North America, and of that number twenty-four species are numerous and common in the United States. Most of them are found on the Atlantic border, though a few species are found only near the western and northern coasts.

The fresh water ducks are the best eating, the mallard and wood-duck standing at the head of the list. The well-known canvas-back, of the Chesapeake, brings the highest price, but many prefer the mallard.

Ducks are hunted in many ways, the most destructive being to "fire-light" or "jack" them, and a still, dark night is generally chosen. A large lantern, with a powerful reflector, is fastened on the bow of a boat, so the rays will be thrown straight ahead, leaving the boat concealed in the intense darkness behind the glare of the lantern. The gunner crouches in the boat, behind the light, and keeps a sharp lookout, while his companion sculls him quietly along until birds are sighted. The boat is then propelled silently within easy range, and, as the ducks huddle, a heavy charge of shot is fired into the thickest of the flock, and many birds are often killed.

When first observed, the ducks appear white, those of the darkest colors being the most conspicuous. When the light is first thrown on the ducks, they swim from side to side, in a zig-zag course, looking back curiously at the strange phenomenon, but finally slacken their speed, and huddle until fired at; then some dive, others take wing and fly hurriedly away.

The old squaws, or long-tailed ducks, are particularly stupid at times, and can be approached within a few yards. Many loons and grebes are killed by fire-lighting, as the glare of the lantern deadens the flash of the gun, and prevents them from diving in time to evade the shot. A heavy double-barreled gun, charged with No. 4 or No. 5 shot, is best for night shooting. The concussion from the first shot of the first barrel usually puts out the light, so the second barrel must be shot quickly, before the ducks have a chance to change their position. The dead birds, if not collected at once, soon drift out of sight, particularly when there is a breeze.

The box or battery is often used in shallow water on the feeding grounds of water-fowl; it should be long and narrow, and just large enough to conceal a man in a reclining position. The following is a description of a box which is often used successfully: Sheet lead, about six inches wide, is nailed on top and around the edges of the box, and bent slightly upward to prevent a choppy sea from slopping into the box on the gunner. From the sides of the box wings run out several yards, to stop the action of the waves, and prevent them from

blowing in on the hunter; the portion of the wings nearest the box are made of half-inch boards, and connected to the box with leather hinges, so they will play with the action of the waves; the rest of the wings outside the boards should be made of canvas tacked on a frame-work of slats, to keep it spread to the fullest extent. The slats should also be connected with leather hinges, so they will work with the water. The box must be weighted or sunk nearly even with the surface of the water, and a few solid cast-iron decoys will be found useful to lay on the battery to assist in sinking it. When shooting from a battery, one hundred decoys, put out a few yards from the wings of the box, are not too many, and more may be used where large flocks are feeding.

A short, heavy breech-loader is most suitable to shoot with from a battery, and the birds should be allowed to alight to the decoys, then flushed, and shot as they rise and fly, for the shot takes the best effect when the ducks are retreating. Early in the morning, on good hunting grounds, one can shoot from a battery almost as fast as a gun can be loaded. A man in a sneak-boat ought to lay off to leeward of the battery and pick up the birds when they have drifted far away from the gunner.

The success of a battery greatly depends on its color; it should be painted a bluish-green, or it will look black and frighten the ducks. A few live decoys greatly increase the gunner's sport. They should be placed near the battery, between the wooden decoys and the gunner. Live herring-gulls are even better than live

ducks. The ducks know the shy nature of the herring-gull, and will pitch to stools of their own species without suspicion, relying on the wary gulls to give the alarm when danger threatens. The herring-gulls also act as sentinels for seals when basking and sleeping on the rocks, and they have often given a drove of seals the alarm when being stalked under cover of the rocks, off the Nova Scotia coast.

Stooling from points under a lee shore is a very successful way to hunt ducks on a windy day. Decoys are placed about twenty yards from the shore, and the gunner is concealed near by in a sneak-boat or blind.

Pass shooting is indulged in on rivers and connecting lakes; the gunner is stationed near a narrow channel or gut, where he keeps a sharp lookout for passing birds. In favorable localities, this affords exciting sport.

Sailing after ducks in a good breeze is another way of hunting them in open water; the helmsman beats to windward of a flock, and then comes down on them with a stark sheet. They will wait until the boat is almost within shooting distance before taking wing, and, as they usually start against the wind, are soon within range of the rapidly approaching boat. When ducks are constantly hunted with a sail-boat, they soon become wild and leave the bays.

Ducks should be drawn as soon as killed, and their intestines removed with a small hooked wire.

CHAPTER XXVI.

BAY BIRDS.

Bay birds consist of the curlews, godwits, plovers and sandpipers. In August, the first shrill notes of the small yellow-legs arouse the sportsman, and shortly after come the little ring-neck, piping plovers, and the small sandpipers. As the nights grow chilly, the musical notes of the golden and black-breasted plovers are heard, often in chorus with the loud, clear whistle of the greater yellow-legs. Occasionally the will-will-willet sounds over the meadows, and the notes of a passing flock of sickle-bills and jack curlews are heard. As the countless numbers of waders skim along the sea-shore, hastening to the south, they are continually cut down when stopping for a moment to rest or settle to the gunners' stools. In some localities there are sometimes seen such perfect clouds of small birds—sandpipers and ring-necks—that a few shots will fill the hunter's pockets. There is no regularity about the flight of bay birds, and the first cold driving rain sends them south in hurried scattering flocks. The curlews often fly in figures, like geese, and settle on sand-bars, which they bore with their long bills in search of small marine animals. A heavy storm usually sends the plovers inland, on corn-stubbles

and plowed land. All the waders can be easily whistled to stools, and in reach of the shot-gun, if the gunner is concealed. The yellow-legs may be called as far as the hunter's whistle can be heard, and it is seldom they refuse to be drawn to destruction. A breech-loader is of most value for shooting on the coast, as rapid firing is often necessary. It requires but little skill to kill bay birds, as a good "stand" is all that is necessary. The stools should be watched sharply, as the flight of birds along the sea-shore is low and rapid. The best time to shoot is just when a flock is about to settle; the survivors usually turn in the air, and immediately after "bunch," giving the sportsman a chance for a second raking shot. The coasts of Massachusetts, Long Island, Virginia and Florida seem to be the best localities on the Atlantic border for shooting bay birds, as in those places the passing flocks linger to feed. Bay birds, from the large sickle-bill to the tiny sandpiper, are found on the Northern prairies. They are seen in thousands around the ponds and marshes formed by the surface water of the plains; also water-fowl of many species. In such localities, one has but to secrete himself on the edge of a marsh, and send a fellow hunter to stir up the flocks. In this way both gunners are kept busy shooting at the scattering bunches of birds as they circle about. Many species are found in one flock, five kinds of waders having been killed at one shot. The large curlews walk about the dry prairie, like miniature ostriches, in search of insects, the young following.

CHAPTER XXVII.

WOODCOCK.

A crack at a woodcock is the sportsman's first treat of the season. Hunting commences on the 4th of July, and in the sweltering heat, through the thickest of cat-briars and alder-bushes, the hunter takes one swale after another until boring is found. In wet weather, the woodcock is hunted in more agreeable cover, and is cut down easily as he goes whistling over waving corn, or takes wing from the cool cover of rushes. Woodcock come with the April showers, and collect and mate at evening. Their's is a strange concourse as they come to the openings in the sprouts, and the chippering notes of the males, as they arise and descend, have a significance of their own. They rise, with hovering motion, vertically in the air, to a certain height, then hang with fluttering wings for a moment, and descend slowly until within a few feet of the ground, when they suddenly pitch downward. First one and then another ascends, and as each one reaches the ground, a battle ensues among the jealous males; but peace is declared at last, and each newly-mated pair go in search of a place to lay their eggs. The young, when two months old, are nearly as large as the adult bird; they have not the

instinct to hide, like the chicks of grouse and quail, but with faint cries of alarm, wander away from the intruder, and squat at a few yards' distance. They are the most simple of American game-birds, and their curious habits will always be a study for sportsmen.

A light, short double-barreled gun should be used for woodcock, charged with two and one-half drachms of powder and one ounce of No. 10 shot; if a gun with small bore is used, the charge can be slightly lessened. The woodcock is easily killed, a single shot bringing it down. Their flesh is tender, and in hot weather heavy loads lacerate the bird, and in discharging give the sportsman a headache; a mutilated bird will spoil in the pocket in a few hours. A small ice-box, carried in a buggy, will amply repay the sportsman in the preservation of birds, and a nicely kept lunch and cool drink are a treat best known to those who have indulged in the luxury.

Later in the season the hunting becomes more pleasant, the weather is cooler, and the birds are found in more open woods. In the Fall they are found in scrub-oaks, hardwood timber, and in a broken country on the south side of mountains and hills. With a well-broken pointer or setter the sport is exciting, as the birds are easily marked and killed. There are certain resting grounds where the sportsman often bags a dozen birds in half an hour. There are several such places at the foot of the Orange mountains, in New Jersey, where, in the Fall, after a driving rain-storm, birds are almost always to be found.

In favorable cover, both the pointer and setter work well, and it is a difficult matter which to make choice of. In thick cover, it is well to run a dog with a small bell attached to the collar, the tinkling of which will tell where he is working. When the sound ceases, he is "pointing," and the hunter knows how to locate the dog and prepare for a shot. The bell is not necessary for Fall shooting, but it is well to use it in nettle cover and willows.

As the woodcock begin to moult, the sportsmen say: "There are no birds—they have gone to moult;" and one might conclude they had left the country to change their plumage. The sportsman who beats the same kind of cover the whole season, comes short in calculation; but the ornithologist, in his various researches, knows where to find the woodcock at all seasons. When the moulting commences, the birds frequent the thickest cover, and do not return to the open to bore at night, as in July and early August. The greater portion retire to the mountains and hills, and moult in quietude in thickets of briars, among cedars and juniper bushes. When the moulting is over, they return to their old haunts to recruit, and when the Fall rains begin, they scatter, and are found in varying cover. As the season advances and the nights become cold, the woodcock begin to migrate southward, and make their longest flights during rainy nights. They will sometimes settle, but for a few moments only, taking wing again with great speed, as if impatient to get as far as possible during the wet weather.

When migrating in clear weather, the woodcock flies high and swiftly, never making the peculiar noise so familiar to the sportsman. During severe storms, their flight is lower, and they often strike against buildings and are killed. We have known of seven being found dead in a single morning within a few hundred yards of each other; and three were killed one stormy night by dashing themselves against a cottage near our own.

Mr. Charles Hinkle, of Jersey City, a thorough sportsman, has brought us woodcock picked up in the street, and one that had flown into a drug store, and broken its neck against a stove-pipe.

The first warm rain in March brings a flight of woodcock to the Jersey mountains and hills of Long Island. The males arrive first, the females a few days later, but pause only sufficiently long to feed, as they migrate towards the north.



CHAPTER XXVIII.

ENGLISH SNIPE.

The Wilson snipe furnishes a few weeks' sport in the Spring, when all other game birds are not hunted. As soon as the frost leaves the ground, the sportsman frees his favorite setter from the chain, and master and dog enter the marsh, zealously beating every spring hole and margins of creeks, listening as they proceed for the "scape! scape!" of the first rising snipe.

In April they are found in the salt marshes in considerable numbers, yet their favorite feeding-grounds are the rich loamy meadows watered by boiling springs. A driving rain from the south brings a flight of birds which migrate both day and night. In rainy weather they are often seen suddenly pitching from a height in the air to a marsh below, like the field or upland plover, and appearing from their direct descent to have dropped from the sky.

The English snipe is the most difficult of all game birds to break a dog on, but in trial the setter is preferable. Three drachms of powder and one ounce of No. 10 shot is a proper charge for snipe, though some sportsmen use Nos. 7 and 8 sometimes, killing "long shots," but often missing many birds. When flushed the snipe takes a rapid zig-zag course low over the meadow, often escaping the

hunter who may be shooting from an insecure bog. Snipe are most abundant where the soil is most aggravating, and it requires considerable agility to traverse a quagmire. One must leap from bog to bog, with the treacherous soil threatening to give way beneath, and where a false step would sink him half his length in the blackest of mud.

The writer was once hunting on the Springfield meadows of Long Island, when one of the party, who was quite portly, suddenly sank to the armpits in mud; he was rescued with a friendly rail amid the hearty applause of jocose companions.

Flights of English snipe often come very late in the Fall. We have killed thirty-seven on a salt meadow on Thanksgiving day, when the ground was frozen and the weather very cold and windy. The birds were in the high, thick grass, with a flock of meadow larks, and snipe and larks rose alternately. Few were killed, comparatively speaking, as our numbed fingers refused to pull the trigger in good time.

The Wilson snipe is a quiet, solitary bird, that comes and goes, in many localities, without its presence being known; the greater portion of them breed in the fresh marshes of the North and West, and we have found them with their young, in June, in Maine and Massachusetts. They pair like sandpipers, but whether the male assists in rearing the young or not, we are unable to say. Many sportsmen object to shooting snipe in the Spring, when migrating; but as they breed late in secluded localities,

propagation cannot be much more interfered with than by Fall shooting.

When hunting snipe, sportsmen often burden themselves with hip boots, but a pair of stout shoes, with woolen socks, will be found more comfortable, as the water runs out from the shoes; while a high boot, once filled, confines the water and chafes the foot badly. Wet feet will have no bad effect while the hunter is exercising, but he should have dry stockings and shoes to put on as soon as the sport is over.



CHAPTER XXIX.

TRAPPING.

To capture game by setting traps for them to walk into, is so purely mechanical an operation, that there cannot be the enthusiastic pleasure felt as in bringing down game at will with the rifle; yet it is not an uncomfortable feeling to visit a set of traps after a snow and find several animals set fast, whose skins will sell well in the market. Traps are used all over the world, and nearly all animals, from the household rat to the grizzly bear, fall victims to the ingenuities of invention. The farmers' boys may keep themselves in pocket money by catching muskrats and minks. The professional trapper makes a fair living; there is much exposure and hardship, but he would not exchange his cabin, or dug-out, for a brown-stone front on a fashionable avenue. His greasy buckskin suit, and general unkept appearance, make him anything but attractive; but in his own language, treat him "white" and he will be your friend. The writer has spent months with trappers, has lived in their camps, and they have visited in ours, and we have always found them honest, obliging and hospitable. The trapper, like the Indian, is always hungry, and it is a part of his creed to feed a hungry member of the fraternity wherever he may find him.

Should you on foot meet a trapper mounted, and he should ascertain you were camped at a distance, it would not be unusual for him to ask you to get into his saddle, and insist on giving you a "lift." If you hailed from the States, he would pump you dry, and would freely tell you about the surrounding country; should you chance, however, to ask him where to trap, he would give you a knowing look, and an evasive, though good-humored answer. There is a vast difference between the genuine trapper, and the border ruffian who traps occasionally, and drinks cheap whisky, and indulges in free fights regularly.

Traps in a hunter's outfit, if used with judgment, will yield him more money than a rifle, except when he may have accessible transportation for large game in a good deer country; both, however, can be used to advantage. The naturalist can secure a greater number of perfect zoölogical specimens with traps than with a gun.

There are many nocturnal animals that one seldom has an opportunity to shoot. Among these might be mentioned the weasel, mink, skunk, lynx, wild-cat, raccoon, "possum," wolf and fox. One may tramp the woods for a week without seeing a weasel or mink, when they are being trapped at night in considerable numbers. A successful trapper never delays in setting a trap, or allows his stock of bait to get low; he follows up new "sign" quickly, and plants his traps as soon as possible. An animal who may make a fresh trail and run in, may be three miles distant the next evening, and not be seen

again. Traps must not be left under snow two or three days. If the trapper cannot summon courage enough for a long tramp, he should, at least, visit the nearest ones. A light snow seems to cause all animals to start out, and the best time to take them is after its fall. Most animals have depot camps, and when one gains a knowledge of the country, the runways of the animals can be detected and traps set. It is best to place them as much as possible on the windward side of lakes and rivers, to avoid the drifting snow. High winter winds generally blow from one quarter, and the flying snow settles in the first bushes or trees beyond an opening, as they break the force of the wind. A trapper's necessary outfit is not at all elaborate, or difficult to transport. A canoe holds everything comfortably, and should contain a buffalo robe or blankets, a poncho, a buckskin suit, two changes of underwear, moccasins, socks and fur cap; also a bowie and skinning knife, set of steel traps, rifle, ammunition, ax, hatchet, one camp kettle, frying-pan, salt, all the ballast of flour that a small canoe will bear, a few bottles of alum, saltpetre and strychnine. When trapping in a country where large game is abundant, a shot-gun will be of but little use, as even the tyro learns to use the rifle successfully when he knows there is nothing else to depend on.

CHAPTER XXX.

STEEL TRAPS.

Modern steel traps are superior to all others for the capture of animals, and several can be set in a few moments when "sign" is found. The Newhouse traps are the best in the market and are made in eight sizes. The O trap is the smallest and is called the rat trap. It is a powerful little arrangement, and when trapping, we have set three to one of any other size.



O Trap.

The O trap will hold a mink or muskrat, and its small size enables the trapper to put it far up the muskrat's escape-hole under water, which when shallow is the easiest and surest way to take him. When caught, he immediately backs into his hole the length of his chain and drowns before he can gnaw his foot off and escape. We have caught the gray fox with the O trap when set for mink.



No. 1 Trap.

The No. 1 trap is for general use, and probably takes more animals than any other size. It is the best for mink,

martin, muskrats and "possums." It is a "business" trap, and holds all animals that come within its jaws from the fox down.

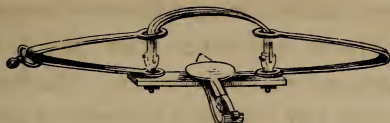
We have taken as many as thirty-three rats and seven skunks from the No. 1 traps in a single morning, though success grows beautifully less when the traps have been set a few days.



No. 2 Trap.

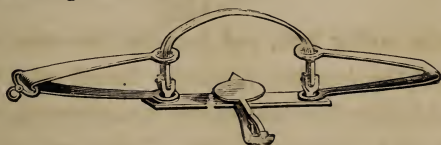
The No. 2 trap is the largest of the single spring sizes, and is called the mink trap. It is, however, too large and heavy for mink; lighter traps will do the same work effectually and are more convenient.

We have caught many of the large brown minks (*P. vison*) in Minnesota with the O and No. 1 traps and never lost one in a whole Winter's trapping. The brown mink is the largest of the two species found in North America, and is very strong, and tenacious of life. The fact should always be kept in mind that *the smaller the traps the less the liability of the animals to amputate their feet*. A heavy trap often breaks the bone of an animal's leg, which in cold weather soon loses feeling, then tendons and skin are easily severed. If an animal is caught in a large steel trap and the leg bone is not broken, it will drag the trap around until the jaws cut through the benumbed flesh to the bone. The animal will then break its leg by constantly prying it against the jaws and will soon free itself.



No. 2½ Trap.

The No. 2½ trap is the smallest of the double springed ones, and is much used among trappers. It is generally set for random animals, and will hold the fox, wolf, woodchuck, badger, fisher, coon, lynx, wild-cat, beaver and otter, though for the two last (particularly the latter) a size larger is better, as the animals are very powerful. It takes a powerful trap to hold the otter when under water and fast among roots and stones.



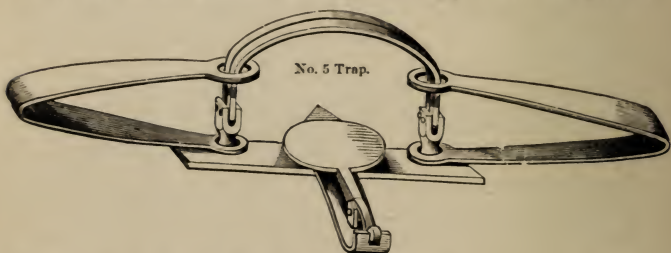
No. 3 Trap.

The No. 3 trap is used principally for the wolverine (now growing scarce), badger, otter, beaver and wolf. It is a very powerful trap, and will hold securely a large animal.

The No. 4 trap we have seldom used. It seems to be almost an unnecessary size, as the No. 3 fills the gap between the No. 2½ and the bear trap. Opinion, however, may differ on this point.

The No. 5 small bear trap is useful, and there should be one at least in every trapper's camp. It is set usually for the black bear and panther. When this trap is set, dogs should be kept tied in camp, as they are liable to smell the bait, and get their legs broken in the jaws.

This trap is difficult to set without assistance. Coyotes, lynxes, wild-cats and foxes often find the bear traps before bruin, and will cause trouble. The trap will crush their legs, but will not cut the cords or sinews, which will hold them. It is best to set it ticklish; then, if there are small animals about, the trapper will be sure of



their pelts, saving bait, and keeping the coast clear for bruin and the howling panther. Never set a bear trap in a trail, unless the bait is very conspicuous, and never set it at all without indication. When set, it should be watched closely, as you are liable to catch a hunter on a trail. A man fastened in such a trap is more helpless than a bear, and, if caught when wearing moccasins, is liable to be lamed for life.

The No. 6, or big bear trap, is a kind of elephant. We have set it several times, but do not long for the task again. Three men are necessary to set it in the woods, unless half a day is spent making suitable tackle. First you must shoulder the trap, and hunt for a level rock or a large log to set it on. You must have a high, solid place to rest it on when bearing down the springs. If you find a log for a site for setting, its upper surface

must be hewn flat, and the trap lashed firmly on it, otherwise it will joggle, and the powerful springs cannot be borne down. Next, you must have heavy, stiff levers to press the springs with, and it is no small task to get those in working order, unless there are trees in the proper places to lash one end of each lever to. Should it be on a side hill, the trouble of setting is much greater. With proper levers the springs will go nearly down without much trouble, but to force them down the last inch, so that the jaws will come open, is the difficult point. When this terrible machine is set, and transported to a locality where bruin is likely to pass, a log must be butted or a tree trunk felled, according to some trappers' ideas, to be used as a clog, but if an ox-chain was made fast to a large tree-trunk and attached to the trap, bruin would not go far. We once had a black bear leave his fore-foot in a trap, but do not think a grizzly, caught high up on the leg with this trap, would amputate his foot.

Any trapper who would go to the trouble and expense of getting one of these forty-pounders into the Rocky Mountains, and pack it about with the expectation of realizing any money in trapped grizzlies' pelts would find it an illusion that would have to be dispelled. Some trappers complain of the small sized pans of the Newhouse traps, which point is really their chief attraction; they cannot be sprung until the animal's feet are in the right place to be securely caught. If an animal steps on the edge of a large pan, the foot is often knocked away as

the jaw flies up; when, with a small pan, the foot would be in the centre of the trap, so, when sprung, the jaws would close on both sides at once, and thus make the capture a certainty. A new set of traps often needs to have the catch shortened that holds the pan in position. It can be done by filing or bending, and will prevent the pan from laying too low when set. The notches in the pans of traps are often filed to lessen their depth and make them spring more easily. Traps used in Winter must spring easily, and the pans should not be too near the bottom, as ice and snow often get beneath and prevent downward pressure and springing.

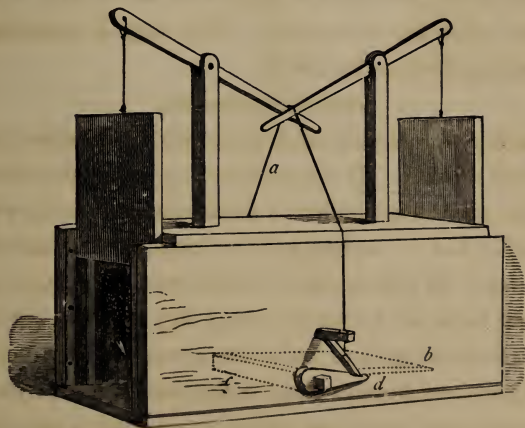
CHAPTER XXXI.

HOME-MADE TRAPS.

We have used successfully eighty-one home-made traps, but as it would fill a volume to describe them all, we will only make mention of those least troublesome to manufacture.

WAY'S SURE POP TRAP.

Way's "sure pop" trap can be made any size, with either one or two falling doors. It is advisable to construct it



Way's Sure Pop Trap.

with a door at each end, so that when it is set the animal can see clear through it, as he then seldom hesitates to enter.

When a wary animal goes into a trap of this kind, he does not seem to have an idea that retreat is cut off in front and behind at the same moment; seeing a clear passage, he enters readily, when he would pass the common one door box-trap. The illustration shows the mechanism clearly; the string (*a*) passing over the levers, is fastened to a small screw or nail in the upper part of the side of the trap, near the middle; the treadle (*b*) is made of light wood and nailed to the spindle (*c*), so that it will be on the same plane with the trigger (*d*); when set, the treadle should have free play, so that the animal's feet will press it to the bottom of the trap and spring it; the doors can be raised any height by regulating the length of string; the bait may be placed on the treadle, or suspended in the top of the trap. This trap is useful alike in catching birds and animals.

NORWEGIAN DEADFALL.

The Norwegian deadfall is easily made, and a sure trap for small animals. It is a good trap for mink, martin and weasels, and rainy weather is not detrimental to its working, as it has no spring pole or cords to be affected by dampness. It may be made as follows: lay a large pole or small trunk of a tree (*a*) over a log, with the butt end fastened to the ground by stakes or stones; for the dead fall (*b*), place a heavier stick under and parallel with the projecting pole, with one end resting against some object so it cannot slip backward. Two wires (*c* and *d*) are fastened to the deadfall (*b*), one to connect with the trigger and the other to catch the animal. One end of

the trigger wire (*c*) should be twisted firmly around the deadfall, and the other end around the trigger near the end not holding the bait, as the strain must be as far away from the bait as possible, so it can be easily raised, and the trap sprung. Two short wedges, or pins, in the upper log, hold the trigger in position; fasten the bait on the trigger, and raise the lower log until the spindle can



Norwegian Deadfall.

be placed over the pegs, when the weight of the log will hold it in position. Fasten the other wire (*d*) around both logs, and to the lower one by a small staple or notch, holding the upper part of the wire in position by staples or pegs so it will not slip down the log when the trap is sprung. This trap may be built very light for weasels, but for larger animals, as skunks, "possums" or raccoons, a heavy deadfall is necessary.

FIGURE 4 DEADFALL.

The figure 4 deadfall is generally used for mink, and is "as old as the hills." To make it, drive two rows of stakes about a foot apart, using for a deadfall a log that will drop loosely between them, hewing one end flat and diagonally across so it cannot turn; let it butt against stakes, rocks or trees, to prevent its moving back when being set. Use a long spindle, and let the extreme end of the log rest on the trigger when set. Bait with the head of a ruf-



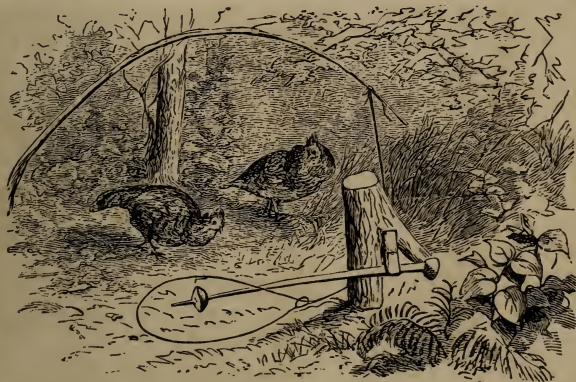
Figure 4 Deadfall.

fed grouse or rabbit, a bird or a fish. Some illustrations show this trap with the log projecting far over the trigger. When the spindle is removed from a trap thus set, the trigger flies up against the under side of the log, which usually remains standing, or sways over to one side and rests against the stakes, still supported by the upright

stick and trigger. A figure 4 can be set with a large flat stone, and if for muskrats, bait with sweet apple or parsnip.

GROUND SNARE.

The ground snare is quickly set, and it is not necessary to have a hedge or pen to guide the game into it. Its parts are so simple that it is not necessary to explain how



Ground Snare.

to set it. Waxed fish line is generally used for the ground snare, as its position on the ground prevents it from twisting out of shape as when suspended. Horse hair is sometimes used, but it is difficult to get it long enough, as a very large noose is required. The lower end of the trigger should be lightly caught against the spindle, so that a slight touch will cause the spindle to fall and spring the snare. A long, limber spring-pole is best for this snare, as it retains its elasticity much better than a short one, and is more successful in securing game.

HEDGE SNARE.

The hedge snare is one of the most destructive known. A low hedge is built across a ravine, wood, or piece of sprouts, where ruffed grouse and gray rabbits resort. Small gateways are staked out a few yards apart, and snares set across them as the illustration indicates. Small copper wire, or horse hair, is used for nooses, which are fast-



Hedge Snare.

ened to the cross-piece of wood, the flattened ends of which rest in the notches of the two inside stakes; the spring-pole is connected to the cross-piece by a stout piece of cord. No bait is used, and the snare is sure to take the game when passing through from either side, as the cross-trigger works both ways. A ruffed grouse will walk a long distance before attempting to cross a hedge a foot high, and pass through the gates, to be jerked into

the air out of the reach of skunks and foxes until the trapper arrives. Skunks are often caught in hedge snares, and it requires a strong horse hair noose and a stiff pole to raise their heavy bodies clear from the ground.

LOG SNARE.

The log snare is used to catch the young male ruffed grouse, when drumming in the Fall. Make a gateway by crossing two long stakes over a log, driving them



Log Snare.

into the ground. Set the spring-pole in a deep notch in a stake, and use a small horse hair snare. This snare can be rigged on a ledge, or on any object where the grouse drum.

FIGURE 4 SNARE.

Next comes the figure 4 snare, which is placed on the ground. The stake must be driven in firmly, or it will become loose and draw from the earth, as there is much strain on it. The stake should be squared on two sides,

and fitted to a deep shoulder in the spindle, as it is more likely to turn out of position than when used with the downfall. Tie the string from the pole to the upper end of



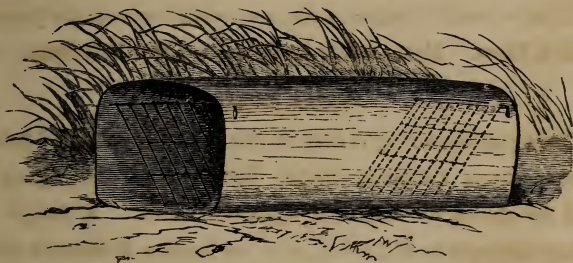
Figure 4 Snare.

the trigger, so the strain at the spindle will be light, and the trap easily sprung. This snare is most successful in taking grouse, gray rabbits and hares.

STOVE-PIPE TRAP.

This trap will catch muskrats, mink and weasels. It is the most successful trap for muskrats ever used. It resets itself when the wire door falls behind a rat, and sometimes several will be taken from one trap at once. The trap should be set under the water, with one end in the rat's burrow, or be placed in a gateway, in two inches of water; a gate can be made by placing drift-wood or bushes against stakes or stones, forming a barrier, a small

gate being left for inserting the trap. The muskrats drown soon after entering the trap, when it is set in their holes below the surface of the water.



The Stove-Pipe Trap.

The trap is made by hammering a length of stove-pipe into a square shape; the doors are of medium-sized wire, and work on two pieces of heavy wire run through opposite holes in the sides of the pipe near the top.

BOWL TRAP.

This simple contrivance will rid a house of mice by keeping it set until the mice disappear. The edge of a bowl or box should rest lightly on the margin of



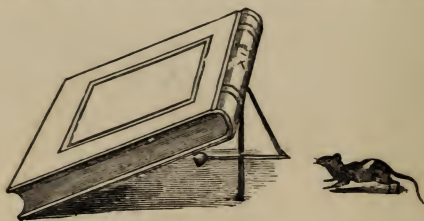
The Bowl Trap.

a large thimble, or bowl of a clay pipe, crammed solid full of bread or cheese. The mouse goes under the bowl, and when attempting to eat the bait, pushes the support from under the bowl, making itself a prisoner.

To remove the mouse, raise the bowl about an eighth of an inch, and move it sideways until the mouse's tail appears. Then hold the mouse, by pressing the tail firmly with any suitable object, raise the bowl, and kill the mouse with a blow. Mice never hesitate to enter this trap.

FIGURE 4 TRAP.

This common trap is one of the best for rats and mice. Every store contains empty boxes, that the figure 4 will let down on and kill numerous rats. A ledger is heavy enough to kill mice, and we have a Webster's Dic-



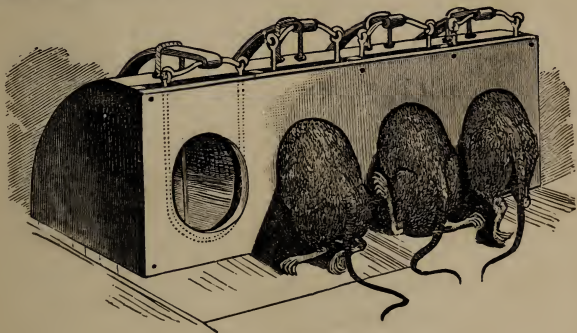
The Figure 4 Trap.

tionary that has caused the death of over fifty mice when set with a figure 4. This trap should spring easily, and the edge of the downfall rest on the extreme end of the trigger, which gives it much purchase, and facilitates its working.

NOVEL MOUSE TRAP.

The novel mouse trap, of our own invention, has been very successful in catching mice. The body of the trap is made by rounding off one edge of an oblong piece of wood, with square edges, forming a quarter circle. The required holes are bored in the solid wood, and small narrow cleats are tacked vertically between them. Over

these cleats is nailed a thin piece of board with holes to correspond with those in the solid block, thus making clear entrances, and spaces between the cleats to accommodate the working of the wire yokes, which strangle the mice. The springs are made from clock springs, or strips of sheet steel, one end being heated and turned over to hold the top of the yoke, the other end being secured to the back of the trap by a small screw. Small pins, driven through the front of the trap, over the holes, prevent the yokes from being pulled out of the trap by the action of



The Novel Mouse Trap.

the steel springs. Two holes are bored near each spring, and through the middle of the block, to receive thread which acts as triggers. To set the trap, pass strong linen thread through the holes and over the springs, commencing at the bottom of the trap; pressing the springs down closely, and tying them in position, separately, letting the knots come on the bottom of the trap. Turn the holes of the trap upward, and drop oatmeal, cracker, or cheese in the bottom of the cavities. The trap is then ready for

use. The mice, when entering the holes, find the threads prevent them from reaching the bait, so they will nip them in two with their sharp teeth, thus freeing the powerful springs, which quickly secure and kill them.



CHAPTER XXXII.

TRAPPING THE BEAR.

We have never heard of an adult grizzly bear being taken with a trap, but the Giant Newhouse Trap would hold him if he got into it. The miners usually treat the grizzlies with a quarter of black-tail venison, nicely seasoned with strychnine. When the bait is taken, a general search is made, and if bruin is not found, dogs are put on his track and he is traced to his death-bed. This is the way most of the grizzlies, pumas, wolves and foxes are taken in the Rocky Mountains and on the plains. Occasionally, a good dog is lost by poisoning animals, but if the baits are carefully watched, and removed before the dogs are turned loose, there is not much danger of their getting poisoned. The cinnamon bear is more shy than the rest of its family, and is not easily trapped.

The black bear is very common, and is found throughout the United States and in the British Provinces. He is easily trapped by the Newhouse No. 5 trap, or the small bear trap. We have seen yearlings, and one two-year-old bear caught by the No. 4 trap when used with a clog. The log bear trap is also used, but its construction makes it so troublesome, that the steel trap is much more

desirable. In the Summer, the black bears are found in the coolest parts of the woods. They often hunt for food during the day, but generally prowl around at night. Sometimes the black bear will get caught in a small trap set for other animals; when caught, he goes from one tree to another, pounding them with the trap until he is free. When the first snow comes, the black bear begins to wander about in search of a cave to hibernate in. At such times it is best to follow up a fresh trail, for you invariably run bruin into his den, and traps may then be set near by, which will catch him the first warm day he comes out. When setting a steel trap for a bear, use a heavy clog in preference to the grapple; the latter is an awkward thing to carry, or have about camp; it is always poking some one in the ribs in a canoe or boat, or tripping one when moving about. When a trapped animal is dragging a grapple through a rough country, it will often catch fast, causing the animal to gnaw its foot off. The clog should be rounded at one end, so as to slide easily along, but should be very heavy, so that the animal will tire in dragging it.

A piece of fresh venison, a rabbit or a hare, makes a good bait for the black bear. Where "sign" is seen, set the trap if possible in an open place in the woods, and lay it in a shallow hole scooped in the ground for the purpose; cover the trap lightly with leaves, and entirely conceal the log and chain with any material which can be most easily obtained. A few scraps of meat may be scattered about near the trap, and the bait should be suspended over it.

It is a good way to rig a trap with two baits, as follows : have one large bait hanging about seven feet above the trap, and a smaller one about three feet over it ; in cold weather, baits do not throw much scent, and the lower one will attract bruin's notice, and that will call his attention to the big bait, which he is bound to have if possible. Never use small baits. When tramping around, visit places where deer have been dressed, and look for "sign," it will often lead to the capture of many animals.



CHAPTER XXXIII.

TRAPPING THE WOLVERINE.

This animal is better known in the Rocky Mountains as the glutton or carvajou; his habits are much like those of the bear, though he is a greater tyrant, and, like the fisher, often causes the trapper much trouble. The No. 3 Newhouse trap is the proper size for the wolverine, and is set and baited in the same manner as a bear trap. The wolverine is a short, thickset, powerful animal, and a good climber. He often still-hunts, like the panther, springing on deer from trees or ledges, and by the looks of his claws one might conclude that if he got fairly hold of a deer it would never escape him. He is cunning; for, although never having trapped him, we have seen much of his handiwork; he has robbed us several times of meat, and from the quantity eaten, have concluded that his stomach will receive any amount. We have found the wolverine in the Rocky and Sierra Madre Mountains only; in the snow ranges of the latter he is common. He inhabits the same localities as the grizzlies, in Summer, and is frequently killed by miners and hunters. He is a habitant of the greater portion of British America, and is sometimes taken in the northern United States. The wolverine is a relentless, stubborn, powerful beast, and nearly all animals fear him.

CHAPTER XXXIV.

TRAPPING THE WOLF.

Many pleasant nights have we spent on the Southern plains, wrapped snugly in blankets, gazing at the myriads of bright stars, and listening to the answering calls of the prairie wolf. On the Northern plains the chorus of the buffalo wolves announce the break of day, and with Old Sol's first rays they vanish, no one knows where.

The coyote, or prairie wolf, is often taken with the steel trap, but the large gray wolf of the North-west is seldom trapped. The coyote resembles the red fox in its habits, and about the ranches of Colorado he is just as shy. We have never known one to enter a log deadfall; the No. 3 Newhouse trap is heavy enough for the coyote, and should be set where they are known to travel. If in an open place; set the trap and smoke it, placing it in a shallow hole so its jaws will be even with the ground; put a few scraps of roasted flesh under and around the trap, and cover it with feathers or wood ashes; the trap should be fastened to a clog, which must be buried lightly in the ground. Another very successful way is to drag a bait across the trails of the coyote and bury it near the surface of the ground, setting a trap directly over it, with a covering of feathers, leaves or dead grass. In some

places there are logs where the wolves cross streams, also stones, which they step on to keep the feet dry; in such places set several traps without baits where the wolves are most likely to tread. The coyote is fond of following the banks of streams and margins of ponds in search of mice; in these localities traps may be set about a foot from shore, so the pan will just clear the surface of the water; cover the trap lightly with earth or grass to give it the appearance of a bog, and place a dead bird, rabbit or other bait in the water just beyond the trap; the wolf, in smelling the tempting bait, puts his foot on the false bog to keep from wetting it, and is taken at once. This mode of setting the steel trap is successful for many animals.

Many coyotes are poisoned by putting strychnine in a jack-rabbit or grouse, and leaving it in a conspicuous place. Many badgers and foxes are also killed in this manner.



CHAPTER XXXV.

TRAPPING THE FOX.

The red, gray and kit foxes are trapped mostly, and many skins of the cross fox are taken in the North-west. Occasionally, some fortunate trapper takes a silver gray, but they are few and far between. The Eastern red fox is exceedingly cunning, and one cannot use too much caution in trapping him. The traps may be set as directed for the coyote, and in this manner: make a bed of chaff, and put a few scraps of roasted meat in and about the chaff. Let the bed remain a few days, and then set one or more traps in it, with light clogs, the traps being covered with the chaff. We have taken the red and gray fox in the No. 1 trap when set for mink with a ruffed grouse hung over it; but it is seldom the red fox ventures to take a bait hung up with a string. The gray fox is more easily trapped, and traps may be set the same as for mink, but the bait should be hung higher. The kit, or prairie swift, is easily taken with the deadfall, or steel trap, and is the most numerous species on the Northern plains. The kit foxes burrow in the prairie, and whole families are often seen sporting about their holes. We have killed three from a family, with a rifle, at long range, before they would take the hint and

go into their burrows. Foxes feed on birds, eggs, small animals, reptiles, insects, and some kinds of fruit. They are very fond of grasshoppers, particularly the larger species. They stalk their prey like the cat family, crouching low on the ground, and moving cautiously along until ready for the final spring.

Where foxes are in the habit of breaking up turkey nests, the farmer can prevent them by placing an iron hoop around the nest, or small ones about it.

CHAPTER XXXVI.

TRAPPING THE LYNX AND WILD-CAT.

Some call the lynx and wild-cat cowardly, but we have found them more than plucky, and worse than ugly. When caught, they will "go for" the trapper on sight, and will handle him roughly if able to reach him. One of the best hounds we ever hunted with was killed by a wild-cat; his throat was badly torn, and side laid open. When fighting, the wild-cat gets a firm hold with his teeth, and then rips its victim with the claws of the hind feet. We have known a wild-cat to kill a large calf, and turn on a man when he tried to drive it away. He is better known to trappers as the catamount, and his piercing, child-like cries are often heard at night in our Northern forests. The wild-cat is nocturnal in its habits, and frequents the heavy timbered districts, preferring the dark evergreen ravines and swamps. He preys principally on hares, rabbits, grouse, small birds and animals, and is very quick in securing them. The sharp hooked claws of the wild-cat make him one of the best of climbers; we once toppled one from a limb of an immense pine where he was quietly dozing. They may be taken by hanging the bait over a No. 3 steel trap, as directed for other animals, and a heavy clog must be attached to the trap, as the animal

will take to a tree, and be overlooked by the trapper, if the clog is not heavy. We once caught one early in the Winter in a trap with an iron grapple; we followed his trail a long distance, but finally lost it; two weeks after, a neighbor trapper found the wild-cat fast to the limb of a large yellow pine, thirty feet from the ground; he had chewed a large limb nearly through, and his body when found was frozen stiff and in good condition.

The habits of the lynx are almost identical with those of the wild-cat, and it can be trapped in the same way. The lynx ranges much farther north than the wild-cat, and not as far south.



CHAPTER XXXVII.

TRAPPING THE BADGER.

The badger when alarmed and scampering over the prairie, looks like a rolling ball in the distance. He appears to be apprehensive when away from his hole, and often sits up and keeps a sharp lookout, like the woodchuck. He is timid, except when cornered, and then fights savagely, and will soon whip the average dog. Should the badger be cut off from its burrow by the trapper, it will attack him if he attempts to stop its retreat.

The best way to take the badger is to set a No. 3 trap at the mouth of his burrow, or down in the entrance of the hole. A long, strong stake should be used, and driven below the surface of the ground, as he is a powerful digger, and will dig up and draw the stake of ordinary length used by trappers. The badger is said to range from Mexico far up into the British Provinces. They are rather common in Colorado, and become more so until reaching the forty-ninth parallel, where they are very numerous. Their favorite resorts are on the hills of the rolling prairie or buffalo plain, where they make deep burrows, using the pile of earth excavated for a lookout station. Their food is much like that of skunks,

and we have found their stomachs to contain flesh, insects, roots and grass; they are very fond of the large Mormon crickets, and gorge themselves on them when in season. Like the prairie-dog, the badger always manages to get down its hole when shot near the entrance. When wandering over the prairie, still-hunting, we have shot as many as six badgers in a day, with a heavy Sharpe's rifle, and every one of them was lost down their holes; we could hear the balls strike them, and, placing an ear to their holes, could hear them in their death struggles. Occasionally, one can be drawn by the wormer of a ramrod, but most of the holes are so steep that the animals slide far down them.

CHAPTER XXXVIII.

TRAPPING THE WOODCHUCK.

Many scoldings we have had when a boy, from indignant farmers whose clover patches our team of young hunters had dug up in unearthing woodchucks. Stone walls also had to suffer; and when the excited dogs had run a woodchuck into a wall, one of a party would keep a lookout for the farmer, while others would put their coats over the dogs' heads, to stop their baying which would surely bring the enemy down upon us. Piles of rails and cordwood were often scattered to right and left, and nothing would keep us from getting our game, except ledges and rocks; the course of small brooks have often been turned into woodchuck holes, and when the persecuted animals burst from their burrows, half strangled, they were assailed with clubs, stones, and the sharp teeth of half a dozen dogs, until killed. One season, nearly all the boys in our neighborhood had a young woodchuck picketed with a collar in the garden. The most successful way of taking the woodchuck is by setting a No. 1 or No. 2 trap in his hole near the mouth; a slight cavity should be scooped out to receive the trap, and its jaws and spring covered with loose earth; grass or leaves may be placed over the pan, but it is not neces-

sary, as the woodchuck is bound to go in and out of his burrow at evening and at daylight, and often during the day. When caught, the woodchuck digs up the earth about the mouth of its hole in endeavoring to escape, but finally retires down the burrow, the length of the chain, and remains quiet. It often occurs that the hole is so obstructed with loose roots by the digging of the woodchuck, that the chain becomes entangled, and it is difficult to drag the trapped animal from his retreat; a large hook, with a long, sharp projecting point, fastened to a stick, will be found useful in removing trapped animals from burrows and other holes; the hook should be placed under the throat, and a sudden jerk will send it through the animal's head, killing it instantly, and putting it out of misery.

The woodchuck usually burrows in or near orchards, or pastures. He prefers to burrow under the protecting stump of an old apple tree, or under a stone wall or rock. When cornered, the woodchuck gives a low, clear, trembling whistle, which can be heard quite a distance; he also has a habit of chattering his teeth savagely when about to be attacked. An adult woodchuck will often keep a dog at bay for a short time, until he is seized by the back in an unguarded moment, when he is soon killed by his more powerful enemy.

Clover, grass, apples and green corn, are the woodchuck's chief articles of food, and, like the raccoon, he becomes very fat, and hibernates in the Fall; he disappears early, and remains all Winter. His flesh is not un-

palatable if the kernels are removed from the shoulders, and his hide makes the toughest of leather. Many woodchucks are shot with the rifle, and their habit of sitting straight up at the mouth of their holes makes them a conspicuous mark.

CHAPTER XXXIX.

TRAPPING THE RACCOON.

“Old Zip Coon, he am a fine scholar,” runs the negro melody, and his cunning, which exceeds that of the red fox, may well give him such a reputation.

In Florida, the raccoon is easily taken with the figure 4 deadfall, baited with a small fish; but the Northern raccoon winks his eye at any such a contrivance.

The raccoon has his regular hunting grounds and crossings over fields and fences, through swamps and over stone walls; he follows the banks of small streams in search of frogs, insects and fish; he rests and breeds in hollow trees and ledges, and the trapper will find a variety of places to set his traps. When the corn is sweet and milky, the raccoons pull down the ears and devour it greedily. They have well-beaten trails leading from the timber to corn fields, and traps can be set on them, baited with flesh, fish, corn or bread, or without baits. The best place to set traps in the Fall is along the streams. The No. 2 trap should be used, and lightly covered; a fish or frog, or the body of a bird, plucked, must be *hung* over the trap, for if it is put on a pointed stick they will pull it down at once, and often fail to step on the trap. Traps set for raccoons may be staked,

as they seldom amputate their feet ; the traps, when set, should be drenched with water, to remove the scent of the trapper, as the long nose of the raccoon is very keen.

They are nocturnal ramblers, and in Summer wander about in search of young birds, eggs, reptiles, insects and roots, until nuts are ripe, when they are mostly found in hardwood timber ; they feed greedily on chestnuts, acorns of the white oak, and beech nuts. In Autumn they become very fat, and when the first deep snow falls, hibernate in hollow trees, loose rocks and ledges. They come out during warm spells, and at such times wander about in search of food, often changing their place of hibernation. It is said by some that they are stupid in Winter and inactive ; such statements are erroneous, for we have often "run them in" in Winter, and when taken from a hollow tree or ledge, they would fight the dogs savagely, and escape if great care was not used. The raccoon has a curious habit of rolling its food and small objects on the soles of its feet, the reason of which no one seems to understand. In the northern United States they run very large, and are dark-colored, some being almost black. Their pelts make the best of robes and coats, and their fat is used by the hunters for shortening, and is good for greasing boots and guns.

CHAPTER XL.

TRAPPING THE SKUNK.

The skunk is found in Mexico, throughout the United States, and in the British Possessions. By many he is called the polecat, but the name is erroneous. In spite of the unfortunate odor which causes man, and even beasts to avoid him, the skunk is really a pretty animal. His fur is long and glossy ("all black, with more white than black"), and he has a bushy tail, which nearly covers his back when raised and turned forward. He is a scavenger, and eats much decomposed matter; he has a dainty appetite besides, though, and preys on poultry and small animals. Turtle eggs are on his bill of fare and the little round tracks of his chubby feet are often seen in the sand where he has searched for them. Crickets and insects, however, form the greater portion of his diet. Some say that the skunk never digs a hole for himself, but drives the woodchuck from his house with his usual defense. Though true in a measure, the skunk is a persevering digger, often digging out his own burrows, and unearthing mice, beetles, etc. The skunk leaves his burrow soon after sunset; their holes are found in fields, under fences and stone walls, and also in ledges, and in the edge of woods. He lives only in

fear of dogs, and the great horned owl, which feeds upon his flesh, seizing him at night with an iron grip. A skunk caught in a snare, or drowned when taken in a box trap, is scentless, unless having quarreled with his neighbors just before capture. The surest way of taking them is to set a No. 1 or No. 2 steel trap in their hole; scoop out a hollow to place the trap in, cover the chain and spring with soil and leaves, and stake the chain its full length away from the burrow. If the weather is very cold, the dirt will freeze, and prevent the trap from springing. The animal, when trapped, will dig up the dirt about the mouth of his hole, but keep it open to retreat in as far as the chain will allow. When a skunk is first seen in a trap, his large tail is raised over his back, and his head is placed between the fore legs; although his eyes are apparently hidden, he keeps a perfect watch of the trapper's movements. It is never advisable to shoot a skunk in the head, for, if blown to atoms, the body retains its odor. He can be secured as follows :

Slip a noose over his head, with a long pole, making no sudden movements, and run a string connecting with the snare over the limb of a tree, gradually tightening it until the skunk's hind feet are clear of the ground. Make the cord fast to any convenient object, and walk cautiously away. When the skunk is dead, you can string him to your belt without fear of his scent.

In fields it is sometimes necessary to strangle them with a noose attached to a long pole, at arm's length. It

can be done successfully, though very tiring to the arms. Should a skunk be scented, sink it in a cold, swift-running stream for several days, and the greenish liquid from which the odor arises will become chilled, and float in drops on the surface of the water, leaving the fur but slightly scented. If one is quick, he can take him unawares, and snatch a trapped skunk upward by the tail, killing him by a blow on the occipital bone. We have often done so when surroundings would admit. A long chain should invariably be used, so as to give the trapper free action in suspending the skunk by the tail.

CHAPTER XLI.

TRAPPING THE OTTER.

The otter rivals the seal in intelligence, and its bite is the most severe of any animal of its size. He is becoming scarce in many localities, and fewer pelts are handled every year. The best time to take the otter is in the fore part of the Winter, when his "sign" is easily seen, and his fishing grounds and depot camps are limited by ice. Otters are great travelers, roaming at night from one body of water to another, sliding down hills with the fore legs pressed closely to the sides, and pushing their bodies along over the snow with the hind legs in the same manner. They are fond of wallowing in springy mud holes in Winter, where they dig out frogs and devour them eagerly; they often track such quantities of mud on the snow that the trapper can see their "sign" a long distance. They frequent both salt and fresh water, but prefer the latter in Summer. Their favorite food consists of trout and dace, which are found in clear running streams; they do not build houses like the beaver and muskrat, but burrow in the banks, usually in deep water, and wander about during the whole Winter. As the frosty nights approach, the otters make slides on the steep banks of lakes and water-courses, where they play by climbing hills, and sliding

down them into deep water; they appear to enjoy traversing the snow, and often make a zig-zag trail, apparently sporting on the way. In Winter, they resort to rapids and air-holes in lakes, and in such places are often seen basking or playing in the sun; at this season they seem to feed mostly at evening and travel at night. The New-house steel trap No. 3 is the best for taking the otter. Traps should be set on the trails, where entering or coming out of the water, for if the animal is not drowned, he will always amputate his foot when caught, if he has time to do so before being found. The trap should be set in about six inches of water at the foot of the slide, with the inner spring turned to the side of the jaw of the trap, laying parallel with the shore, so the jaws will strike the otter's feet sideways; the outer side of the trap should be braced up with mud so it will pitch slightly inward, as the animal is likely to go over the trap and spring it with his belly if it is placed flat on the slanting bottom. Cover lightly the whole trap, except the pan, with leaves or mud, and weight it rather heavily. The ring on the chain must be run over a long pole (young iron-wood poles are good, being tough, long and even), driven or weighted in deep water, with the end holding the ring bent down near the trap, and fastened under water. When caught, the otter immediately dives for deep water, taking the weighted trap to the lower end of the pole, where he drowns, being unable to reach the shore.

A trap may be rigged in the same manner, and placed flat on the bottom where the otter leaves the water to as-

pend the hill for a slide. In some localities it will be necessary to put bait over a trap for otter, when fish should be used; but, as a rule, the most successful traps are those which are not baited.

When using steel traps, set plenty of them in runways, as they need no baiting, and but little care.

The otter is a terrible fighter, lying on its back most of the time when attacked. Our dogs once ran one in a hole about fifty yards from the shore of a lake; after half a day's digging, we reached the end of the burrow, and the otter suddenly leaped past us out of the burrow, and was savagely attacked by three dogs; the fight lasted several minutes, and during that time the otter gradually worked his way to the water and disappeared beneath its surface. During the struggle it was impossible to shoot, or club the otter, on account of the dogs; we struck at him several times with a spade, but hit the dogs as they "jumped in" unawares. One of the dogs had his fore leg broken, just above the wrist, by the otter's jaws, and the others were badly cut. Several weeks after, a friend watched a lake for the otter, and killed him with heavy shot; it proved to be a male, and the largest we had ever seen. When domesticated, the otter becomes very tame and affectionate. A hunter in St. Paul had one that followed him like a dog, sliding along over the smooth pavement in its characteristic playful way.

CHAPTER XLII.

TRAPPING THE BEAVER.

We have seen illustrations of beaver houses whose smooth finish would do justice to an accomplished mason; but we have seen and trapped beavers in all kinds of waters, in the Territories and British Provinces, and have never found one of these lodges of perfection. In some localities, where large streams run swiftly, the beavers burrow in the banks like muskrats, and have no houses at all. In such places they cut down large cottonwood trees, so that they fall in the water, where they drift on snags; then, for the winter's food, limbs of the cottonwood and willow shoots are added until a large pile is made, mostly under the water. The beavers are probably most numerous in the headwaters of the muddy Missouri and Yellowstone rivers. They are very common from the head of the Missouri to some distance below Fort Stevenson, and are known as "bank beaver." They burrow in the cut banks, where they make slides through which to haul, or, rather, to push, their cuttings to water. During the Summer they feed chiefly on young willow shoots, which grow abundantly on the river banks; but about the first of September they commence cutting down large cottonwood and quaking ash trees. The trees are severed to fall towards the water, and when

felled, are cut in different lengths, according to diameter, and are carried or rolled to the water. We measured a cottonwood that the beavers had nearly cut through, on the banks of the Missouri, and found the diameter to be over three feet.

The large trees are cut for winter use, and are generally partially submerged, so that when covered with ice, the parts under the water will be of easy access. Sometimes houses are built of driftwood, sods, young shoots and grass, and roots of aquatic plants; these are placed in the top branches of the sunken trees, but the houses are only for temporary use. The small, tender twigs and bark of the large sticks are all that are eaten, and the sticks, when peeled, float away on the water.

When felling a large tree, several beavers work together, and make rapid progress in cutting. They do not gnaw the wood by simply taking chips the width of their incisors, but cut two parallel grooves about three inches apart, and economize time and labor by splitting out the wood between. The holes of the bank beavers have entrances deep under water, which can be entered safely when danger threatens. The holes run from the water towards the surface of the ground until they are dry above the water level; then the burrows are greatly enlarged, and air apartments are made at the ends; here warm beds are made, in which the young are nurtured until large enough to accompany their mothers.

When hunted, the beaver, like the deer, becomes timid, and will not venture out to feed until evening. When the

beaver first leaves his hole, he comes to the surface of the water a long distance from shore ; and if there are no suggestions of danger, he swims quietly to the bank, and commences his evening meal. Should he observe the trapper, he slaps his tail smartly on the water, and dives and seeks his bed, where he remains until he can come out unseen.

Near dams on the creeks of Colorado, we have seen several outlet holes of the beavers' which come to the surface of the ground, but they are exceptions to the general rule. On steep banks, slides are often made near the burrows ; they are a little wider than the body of the largest beaver, and are sometimes graded to a depth of five and six feet.

The best and easiest places to trap beaver is where they have dammed up small streams, flooding willow patches, which furnish excellent feeding grounds. In a good beaver country the dams are built the whole length of the streams.

If they are built in a gully and the water is deep, simple burrows answer the purpose of houses, but when the dams form large flat ponds, houses are built in the centre ; they are made of fine material, most easily obtained, intermixed with cuttings and swamp mud, the whole being then covered with branches of trees and fine willow cuttings. The Sphagnum moss is used for packing and lining the houses, and when all is complete, the exterior, in the distance, resembles a pile of brush. In dissecting the lodges we have never found the fresh

water mussels upon which the beavers are said so greedily to feed.

The No. 3 Newhouse trap is the best size for the beaver. Some trappers use the No. 4, but we have found the No. 3 to work most effectually, it being more easily handled than a larger trap. There is no regular rule for setting traps for beaver, as they must be arranged in accordance with the nature of the trapping ground. It is not best to put traps in beaver holes, as they become wary and suspicious; but to drown the beaver should always be made a point, else an amputated foot is all that the trapper will get for his trouble.

When searching for "sign," find a slide if possible, and set the trap at the foot of it, about four inches under water; bury the trap lightly in the mud, except the pan, which should be free, and lightly covered with dirt or leaves; leave as little trace as possible, and fasten in the middle a stick about three feet long to the ring in the end of the chain; then tie a rope or light chain to the ring long enough to let the beaver reach deep water when caught. If the bank is steep and water deep, drive a long pole in the bottom, and stake the large end down under water near the trap. Adjust the chain about the pole so that it will slide easily, fasten the end of the rope or long chain to a stake under water where it can be easily reached; cover all traces of the fastenings as nearly as possible with mud or dead leaves, and throw water where you have been standing, or upon any object handled. If stones are about, it is well to weight a trap,

though it is but seldom a beaver makes his way to the surface of the water when once reaching the bottom of the pole ; here he is sure to go when trapped, in attempting to reach deep water. When a trapped beaver is able to reach his hole, or get loose from the pole, he will enter a burrow the length of the short chain only, and the cross-pole will stop him in season to be easily drawn from the hole.

In small dams, rig the trap with cross-pole and buoy only, having the trap lightly weighted ; a beaver will be drowned in the entrance of a hole, or in deep water, when the buoy will indicate the position of the trap. In thick willows, where one has no canoe to find suitable places for setting traps, it is best to place them at crossings, or where the beavers are at work. Should a dam be completed (which is usual before cold weather), make a ditch where the water will run over, and set a trap the same as at the foot of a slide. It is seldom that beavers are taken on successive nights in one dam, as the first capture generally alarms the rest. The castoreum, or beaver medicine, can be made after the first pelt has been stretched. The proper way to prepare it is to take the contents of the four glands and mix with enough alcohol to preserve it. Most trappers use whisky to preserve the beaver medicine ; we have questioned many, and they all give the same receipt ; we have heard of some more fastidious than practical, who, with the pen, mix all kinds of strong scents with the castoreum, but it overpowers the odor that should be preserved—the natural

scent of the beaver. The medicine must be used above the traps as much as possible. For instance, if a trap was set under a log in the water, the lower surface of the log should be rubbed with the castoreum.

A good trapper never skins a beaver near a dam, as everything left behind suggests an enemy in the camp to the rest of the sagacious beavers.

Although the haunts and habits of the beaver are all the necessary details to be given in trapping, the anatomy of the skull is so peculiar that it cannot fail to be of interest to the reader.



Beaver's Skull.

The skull of the average beaver is 5 inches long, 3.50 inches wide, with a circumference over the eyes of 11 inches. The heavy structure indicates great strength, and the under jaw is remarkably thick and strong. The

brain is medium in size. The upper portion of the skull is broad and flat, with a slight rise from nose to occiput, broken only by a slight depression between the eyes. The ears in life are attached to bone tubes, which project 0.25 of an inch from the skull and run to the drums; these are large, rather near together, and rest just forward of the occipital bone. There are two incisors on each jaw, the superior ones curving inward, and the lower ones slightly outward; the latter are the longest, measuring 1.25 inch. The front surface of the incisors are covered with plates of thick enamel, which form the cutting edges. It is very hard, and the outer surface is of an orange color. The teeth are shaped precisely like a carver's gouge, being slightly convex on the face, sharpened by a concave slant from a point scarcely half the length of the teeth to the edges.

The grinders are eight on a side (four upper, four under), and are regularly grooved like the ruminant's. The fore part of the upper jaw is so narrow that the width of the roof of the mouth is but 0.25 of an inch between the first two teeth; all of the upper grinders slant backward, while those of the lower jaw incline forward, and both meet with evenness and precision.

CHAPTER XLIII.

TRAPPING THE FISHER.

The fisher, better known to trappers as the black cat, is a strong, vicious, active animal, and a good swimmer and climber. Like the wolverine, he is feared by all small animals, and is king along the small streams. The northern forests of North America is the home of the fishers, and they seem to be thinly but widely distributed. He is baited with venison, birds, small animals and fish, and will prey upon any animal he can master. Trappers dislike the fishers, as they follow a line of mink traps, stealing the baits from above them, and, when deadfalls are used, have a successful way of removing the bait without getting caught. They are sometimes taken in traps set for the fox and wolf. It is not advisable to set traps expressly for the fisher, for he is not common enough; special traps can be set when his "sign" is observed. If a fisher follows a line of traps, make a heavy deadfall to drop in an enclosure with three sides; the deadfall must be so raised that, when it drops, the end will be near the cross-row of connecting stakes. This differs from the mink trap by having the stakes run to and around the end of the log, so the animal will have no way of reaching the bait except by going underneath

the log from behind. Sometimes a fisher at first looks with suspicion on a trap like this, but he usually overcomes his scruples, and gets caught within a few days. The No. 2 Newhouse trap is the best for the fisher, and should be set in a gateway of rather high stakes, or in the open, with the bait hung from above, and about three feet over the trap. A successful way of trapping him is as follows: take a ruffed grouse and hang it on the trunk of a small tree, so its head will be about three feet from the ground; around, and a foot from the bottom of the tree place several traps on the ground, neatly concealing them with leaves or other light coverings, and scatter feathers from the grouse over them. This manner is one of the most successful for catching all carnivorous animals. Traps for the fisher should be rigged with spring or sliding poles, near water, so he will be drowned when trapped, or he will amputate his feet and escape.

CHAPTER XLIV.

TRAPPING THE MARTEN.

Like the squirrel, the marten is a nimble climber, and has the agility of the weasel. He is watchful, like the cat, and a sharp, successful little hunter. He is the American sable, and frequents heavy pine timber, and is often called pine marten. Squirrels are his favorite prey, and he springs on them unawares from above. We have seen one chasing a red squirrel over the limbs and around the trunks of trees with such speed that it was almost impossible to follow them with the eye. If the pursued squirrel can enter a small hole he is safe, for the marten is about the size of the large brown mink of the West, and cannot follow. The marten is strictly a timber animal, frequenting heavy timbered, dark woods. He is found in the northern forests of North America, and we have met with him as far south as the Sierra Madre Mountains of Colorado; he probably inhabits the higher ranges to Mexico. The Newhouse No. 1 steel trap is the most useful for taking the marten; it should be baited with a bird, small animal, or piece of meat. We have found the head of a rabbit, and the neck and head of a grouse, to make the best of baits. The bait must be suspended eighteen inches above the trap, which should be lightly covered with

decayed wood, leaves or grass. The marten is head-strong, like the mink, and will walk into a trap if properly set. It is not necessary to enclose a marten trap with stakes, as the animal is sure to step on the pan when endeavoring to reach the bait. There are certain runways on fallen timber where traps can be set and baits hung over them. A trap set in a hollow tree or log, covered with feathers, is often successful.

Traps set on logs are often sprung with squirrels, and need close attention; yet the squirrels taken make good baits, and are not objectionable in a pot-pie.

CHAPTER XLV.

TRAPPING THE MINK.

The mink is a pirate and a forager. He subsists on mice, young birds, muskrats, fish and frogs. Poultry disappears where he abounds, particularly in the Winter, when he is short of food. In Summer he prefers brook trout to all other prey, and follows up quick running streams in search of them. He is not only a gourmand but a miser, and hoards up piles of fishes that he is unable to eat.

In Winter he roams about following margins of rivers and lakes, hunting every nook and corner for food. The mink often burrows under snow-drifts to reach cavities under banks, logs, or rocks, and when his search is over, he bursts up through the deep snow, and starts off on his peculiar shambling lope to make new investigations. In cold weather, when snow is packed, a mink will travel eight or ten miles over its surface in a single night. In very severe weather their wanderings are much shorter, unless they get frozen out from the rivers; such being the case, they wander about, attacking muskrat houses to force an entrance, or scratch continually at weak places in the ice in hopes of reaching water. If all efforts are unsuccessful, they "fetch up" at some swamp, where they prey on hares, shrews, and any rabbits caught napping in burrows or hollow logs. We have trailed mink for the greater part of a day when they were wandering about in search of water and food.

The mink is easily trapped, and will step on a trap without suspicion. The O and No. 1 traps are the proper sizes for mink, and they should be set on the ground with baits hung over them about eighteen inches high. Birds, small animals, fish and flesh make good baits for mink, and should be kept as fresh as possible. Mink seldom touch frozen bait except when very hungry, though they cannot resist the temptation to smell, however, and are thus often caught.

In the Fall and Spring, traps are rigged with a sliding pole so that the mink will drown when caught, otherwise they would soon gnaw their feet off and escape. In very cold weather they soon freeze; few animals, however, get away during winter trapping in the North.

There are certain protected places along water courses where mink are most liable to be taken. Traps should be set under old bridges, fallen timber, shelving rocks and loose boulders. Rush beds are favorite resorts for mink in Winter, and traps may be set where mink have been burrowing among them in the snow. Each trap should be laid on a handful of the down of the cat-tail, to prevent sinking in the snow. If cat-tails are not to be found, rushes or small twigs can be made use of. Mink have depot camps, which they visit irregularly. These places are usually air-holes in brooks, and springs and swamps. When "sign" is occasionally seen at such places, a set trap will usually catch the first mink that goes over his regular hunting grounds.

CHAPTER XLVI.

TRAPPING THE WEASEL.

There are two species of weasels which are commonly taken by the trapper, who generally finds them in his mink traps. One is the American ermine, or little weasel, and the other, which is the larger, is called the long-tailed weasel. They are both widely distributed species, and we have found them wherever we have trapped. The little weasel is the quickest quadruped in North America. We have seen one run down a red squirrel in a fair race, and so rapid are its motions, that they cannot always be followed with the eye.

In one of our winter camps there were several of the small weasels that soon became so tame, they would run over us in our bunks, and take venison and birds from the hand. They proved to be such pilfering little rascals, it was agreed that we should kill them. Meat was laid on the wood-pile, and they came out to eat it; while thus engaged we would strike at them with clubs repeatedly. Sometimes we would stand motionless with clubs raised, ready to strike, but we found it impossible to strike one. They would be standing quietly, but before the club reached them, they would vanish like a shadow, and in a few minutes come out and give us another trial. We finally destroyed them with traps.

The O trap is the proper one to set for weasels. The bait should be hung over it the same as for mink and other animals. If a No. 1 trap is used, the bait can be fastened on the pan, and the trap when sprung will shut on the shoulders of the weasel. This is the only exception where it is advisable to place the bait on the pan of a trap, for quadrupeds. The weasel is very light, and a trap should be set for him so a slight pressure on the pan will spring it. When the trap is set, place the thumb of the left hand under the jaw, and press down the pan until it is about to spring. Many large traps require to be set in the same manner. Weasels are very numerous in some localities; we have taken forty-two small weasels in a dozen mink traps in two months. The small species are bold little hunters, and travel miles over the snow, searching for prey in every hole and corner. They always search under logs for shrews and mice, which are their favorite food. On dissection, their stomachs usually contain shrews. In fallen timber, a light Norwegian dead-fall is a very successful trap; it should be baited with venison, a mouse, or a bird. If venison is used, care must be taken in adjusting the trigger, or the meat will freeze the trigger fast to the log and prevent it from springing.

The large, long-tailed weasel is about medium in size between the ermine and the black mink, and frequents the same localities as the smaller species. He is more fond of water, however, and goes into it for fish, or frogs, almost as readily as the mink. This species is not as

common as the small variety, and we have never taken more than ten in one locality in a winter's trapping. We have found them as far south as Pike's Peak and Mt. Lincoln, and north to Kootenay Pass, of the northern Rocky Mountains. They live on the plains in the prairie dog villages, and probably prey on the young prairie dogs. They are also found in the gopher villages of northern Montana. Both species are foragers, and they make short work of a hare, by seizing him back of the ear and driving the canine teeth into the skull. When a firm hold is obtained, the weasels shut their eyes and remain motionless, until they have sucked their fill of blood. The carcass is then dragged into a protected spot and used as a bed, and for food, if a new warm victim cannot be secured. Poultry often suffer from the attacks of weasels, as they kill a fowl nearly every night, and suck their blood only, until a flock is exterminated.

CHAPTER XLVII.

TRAPPING THE MUSKRAT.

The first furred animals the writer learned to trap were the muskrats, and their pelts paid for our first set of traps. The habits of the muskrat are pretty well known to every country boy, yet we trust some of them may get a few "wrinkles" from this chapter. It would be a difficult matter to tell of a locality in North America where the muskrat is not found. We have taken them from the sewers of our cities, from cellars and barns, from fresh water and from salt water. They are not uncommon on our Northern alkaline plains, where we once saw one sporting in a puddle not much larger than a wash-tub. They were even at the "Centennial," where we ran one into a hogshead, and soon after ornamented the "Hunter's Camp" with his pelt, which was the only one taken at that camp.

There are many ways of trapping the muskrat. The stove-pipe trap is one of the best, when the nature of the holes will admit of its use. The figure 4 deadfall is often used; but for general use, the O and No. 1 New-house traps are the best. Boys often dig "rats" out of the holes with the assistance of dogs, or spear them, when frightened, from their holes under water. First comes

muddy water, and immediately after the muskrat, as he goes hurriedly over the bottom, half running, half swimming, in his haste to get away. When the marshes and ponds are frozen hard enough to bear, the "rats" can be taken as follows :

Visit all their houses, and chop a hole in the ice over the escape-holes in the houses. When this is being done, several, and often all, of the tenants will leave their abodes, but will soon return. After the holes are made, return to the first house quietly with a long bag net stretched over a ring on the end of a pole. Place the ring over the hole, and press it closely to the house, while one of the party suddenly jumps on the house, and drives the "rats" into the net. Sometimes it is found necessary to open a house with a spade before all the tenants will go out. When taken, the game is easily landed on the ice and despatched. The meshes in the net should be large enough to let the animal's legs slip through, so they will become entangled and helpless.

When using steel traps, they should always be placed in the holes, under water, if possible, as it is the most successful way. The traps are easily set, and the "rats" generally drown in the holes. Traps should be set in the open, wherever "sign" is observed. Their chips on stones and flood wood, and the loose grass scattered about, show the trapper where to place his traps. Muskrats have regular landings, which are generally on points of land, or grassy places near still water. When a muskrat is traversing a stream, he keeps close to the bank, in

the still water, unless going for some given point. A trap should be set in about two inches of water, with the spring turned to the side of one of the jaws, so it will fit close to the bank, and the jaws strike the feet sideways as the "rat" approaches from out in the stream. A piece of sweet apple or parsnip should be placed on a sharp twig, seven inches over the trap, to direct the muskrat in the right direction. When a trap is thus set, and there is no convenient spring-pole to attach to it, the trapper will have to take the chances of trapped "rats" gnawing themselves free. If the traps are visited early in the morning, few feet will be found in them, as the muskrats are more frightened when daylight comes, and make strong efforts to free themselves.

The food of the muskrat consists of grass, rushes and their roots, mosses, fresh water mussels and frogs. They are very fond of parsnips, and often destroy patches of them, when easy of access. The flesh of the muskrat is eaten by the Indian, also by mink, otter, foxes and birds of prey.

CHAPTER XLVIII.

TRAPPING RATS AND MICE.

The sagacity and reasoning powers of an old house rat is almost incredible. He cannot be trapped in the same manner twice, and it is often a difficult matter to catch him at all. We have seen one rat lie on his back, holding a duck's egg with his legs, while others drew him away with the prize. In a slaughter house we have observed twenty-five or thirty rats move away a beef's hock with their united strength, dragging it but a few inches at a time. There were several rats that seemed to be overseeing the work, that ran about the others, rendering them but slight assistance. In the Spring and Fall large droves of rats collect and travel in a mass for long distances. They move during the darkest nights, and do not set out until late. Should a dog attack them, they will set on him in a body, and nip him so sharply that he will soon beat a hasty retreat. A great many rats confined in a room will attack a man vigorously, yet some men will handle them with impunity. We have known of a young man to go into a stable in the dark, and pick up a half dozen rats out of a manger, with his bare hands, and put them in a bag, without their biting him.

Rats can be trapped in many ways. A steel trap buried in corn meal in a box is very successful. When entering

the box they commence digging, and soon strike the pan of the trap, causing their capture. Another way is to place a trap in or at the mouth of a hole, and fill it with sand, covering the trap. In clearing away the sand and re-opening the entrance, one rat will surely be caught. In shops where iron tools are lying about, a steel trap may be placed where rats are passing, and they will step on the bare trap without hesitation, when if it was placed in a cellar or barn uncovered, they would suspiciously avoid it. Occasionally an old rat will step on a bare trap in an unguarded moment, when it has been set for a long time, and he becomes used to seeing it. In stores where rats are accustomed to boxes, they will go under one when set with a figure 4, and are easily caught. A trap made with glass sides and wood top and bottom, rigged with wire doors lying diagonally across the trap, like the stove-pipe trap, is useful in catching rats alive. Mice can be taken with the bowl trap, a small figure 4, the novel mouse trap, and Way's sure pop. Both rats and mice can be poisoned with arsenic, strychnine and plaster. Arsenic is not always fatal in its effect, unless an animal eats a certain quantity which the stomach will retain. The action of strychnine is quick and sure. These two poisons should be given to rats and mice, spread with butter thinly on bread or cake. Plaster should be mixed dry with meal; when taken into the stomach, it sets in pieces, stopping digestion, and causing death, though it is not poisonous.

CHAPTER XLIX.

TRAPPING BIRDS OF PREY.

Hawks and owls, which prey so continually upon the farmer's flocks, always manage to appear when least expected, and have a faculty of escaping uninjured. A hawk, in flying, scoops suddenly down, seizes a chicken, and is beyond range before one can collect his wits sufficiently to fire a shot-gun. Owls come at night when the coast is clear, and almost always make sure of their prey.

The farmer's greatest enemy is the chicken hawk (sharp-shinned hawk). It is the most common species in the eastern United States, and preys on small chickens when but a few days old. We have known of one pair to take twenty-nine chickens in five days, but we marked and followed up their course, and shot them when they came to feed their young.

The hen hawk (red-shouldered hawk), like the sharp-shin, is a summer resident in the eastern United States, and preys on hens and young turkeys. His loud screaming notes are often heard at daylight, as he sits near his nest, or when he soars in the air.

The red-tailed hawk is also a large powerful hen hawk, and is most bold and daring. In the United States the goshawk appears late in the Fall, and remains until Spring; he preys principally upon pigeons, though does

not object to a nice domestic fowl. There are other varieties that annoy the farmer, such as the sparrow, pigeon, cooper's, etc.



Trap on a Tree.

All hawks can be taken by steel traps set as indicated in the illustrations. The most successful way is to fasten the trap on the top of any object that hawks come to rest upon. A partially trimmed tree, like the illustration, is often a favorite perch.

Many species of owls often bring to grief much of the farmer's poultry; among these are the great-horned,

barred, long-eared or cat, and the mottled or screech-owl. The great-horned and mottled owls are the worst plunderers; the former is a large, powerful bird, able to kill a full-grown turkey with ease, and drag it along the snow any distance.

The mottled owl enters dove-cots and destroys many pigeons in a single night. When the supply is sufficient to satisfy his appetite, he is so dainty as to feast upon the brains only. He is a short, little fellow, with large, yellow eyes, and, unlike the others, wears two suits of plumage, one reddish-brown, and the other mottled-gray.

Owls and hawks are often taken in traps set on the ground, and baited with a bird or mouse.

Traps set on trees for owls should not be placed high, as their flight is low; a post, stump, or large limb of a low tree, is often a well chosen place. The bait should be placed about eight inches below the trap, as owls pitch on top of a post and on the trap to investigate before attacking the bait.



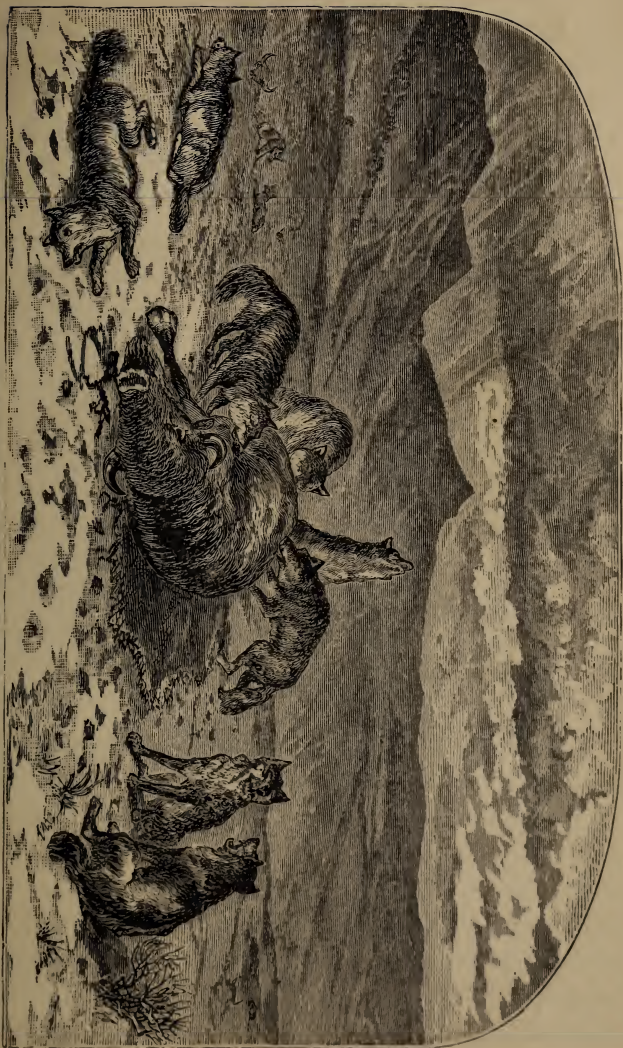
CHAPTER L.

POISONING CARNIVOROUS ANIMALS.

Though many hunters poison animals for their hides, the practice is indulged in as a profession, on the Northern plains, by a class of men known as "Wolfers." They are Yankees and half-breeds, and are brave and courageous beyond expression. The buffalo wolf is chiefly sought after, though the coyotes, and red, gray and kitt foxes are often taken. The wolfers are exposed to greater hardship than any other class of hunters; they have to live in the most barren country, exposed to the severe weather and winds of the plains, which, in their fierce and cutting sweep, seem to imitate tornadoes. Remote from civilization, deeply drifted in with snow, they can scarcely travel, and often wonder how life will be sustained for the Winter; but their pluck seems to keep them alive until Spring dawns on them and their half-starved ponies. They often make a good winter's work on the upper Missouri and Milk rivers; but their hard-earned money too frequently goes for Indian whisky, for which they pay a fabulous price.

In process of poisoning, one or more buffalo are killed for baits; their skins are partially removed, bodies laid open and contents of thorax taken out. The viscera

POISONING CARNIVOROUS ANIMALS.



and blood which settles is poisoned, the upper quarters are gashed with a knife, and strychnine is put in the incisions. The crystals soon dissolve and penetrate the flesh. The carcasses often freeze before the wolves find them, and they first eat the frozen blood from the thorax, and die in from twenty minutes to an hour afterwards. In warm weather the action of the poison is much quicker. It takes two bottles of strychnine to a buffalo, costing the hunter a dollar and a half. Occasionally the poison is unsuccessfully used, but the hunter is almost sure of a few pelts, and is often richly rewarded. Seventy-eight wolves have been taken in Montana in a single night with one buffalo.

When poisoned, the animals often freeze, and are piled up like cord-wood, until the weather is sufficiently warm to skin them. Occasionally a few are thawed out by the camp fire and the pelts removed; but if one "strikes the buffalo right," he will have plenty to do to kill for bait the stragglers that come near camp, and to pack the wolves.

The carcass of one buffalo will do long service, but fresh ones are best, and should be obtained if possible. When buffalo are scarce, it is often necessary to lay baits five, ten or fifteen miles from camp. Three wolves are enough to carry behind a saddle at once, and when the baits are so far away from camp, the great difficulty of securing poisoned animals in a northern Winter may be imagined. Wolfing is carried on in Minnesota, Dakota, Montana, and in the British Provinces. Strychnine has

made great havoc among the immense bands of gray wolves that frequented the Northern buffalo prairie. In Spring, the wolfers used to come down the Missouri river in mackinaw boats loaded with packs of pelts, the skin of the buffalo wolf predominating. When we were once camped with wolfers, traders were giving one dollar per pelt; in St. Paul they were bringing one dollar and a half, and in New York City two dollars.

All carnivorous animals can be destroyed with strychnine. The larger ones can be poisoned by putting a few crystals in small balls of butter or lard, and scattering them around a large bait, or dropping them where animals are likely to come.

Small animals may be taken by poisoning scraps of meat, or the bodies of mice, birds and fishes. The red fox can be easily poisoned where he could not be trapped. When using poison in settled districts, it must be handled with great care; it should be used moderately, in small baits, and placed where dogs and cats are not likely to find it. Some writers assert that strychnine spoils the skins of animals, and causes the hair to come off when dressed. We have mounted and tanned many skins poisoned with strychnine, and have not found them in the least injured, and have some in good condition that are fifteen years old. Poisoned animals may be kept frozen for three months, and will be found in good condition when their pelts are removed.

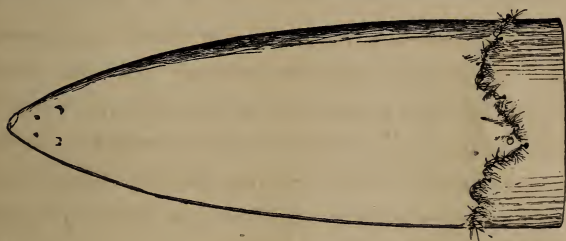
CHAPTER LI.

PREPARING PELTS.

Many industrious trappers lose much hard-earned money in carelessly prepared peltries. All pelts should be removed from animals when first captured, except in severe weather in the North, where animals may be kept frozen for weeks without injuring the fur. Skins should be well stretched and cleaned of all loose flesh when green; they should not be scraped too severely, however, as in so doing the fibre is often injured. They must be dried away from the camp fire, in the shade or open air. Pelts dried under a hot sun soon become very hard and dry, and are liable to tear, particularly those from thin-skinned animals, such as the fox, lynx, wild-cat, muskrat, etc. Fatty skins, like those of the bear, raccoon, seal and skunk, can be exposed to the sun without injury; the heat draws the fat to the surface, and it is then easily removed. Alum, salt and saltpetre are often applied to green pelts by amateurs, but it causes shrinkage, and also prevents quick, soft soaking and easy currying when first handled by the tanner.

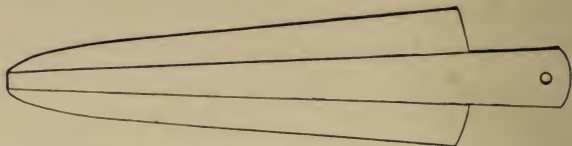
Furred animals are trapped in cold weather, and no preservatives are necessary in drying the skins. The blood should never be washed from the flesh side of a

pelt, as water injures the skin and causes decomposition. The skins of most animals should be drawn over stretchers, with flesh side out, and edges tacked in position. Of the class treated thus, mention might be made of the otter, fox, fisher, martin, mink and muskrat. The skin of the muskrat should be stretched over a shingle, with sides slanted on thin end, and corners rounded.



The animals mentioned should be skinned as follows : cut the skin through around the ankles ; then place a small, sharp knife in the incisions, and open the skins down the inside of the hind legs to the cauda. This amount of cutting will enable the skin to be pulled over the head of the animal without tearing, and to come off in bag-like shape. The tails are drawn out by placing the fleshy part between two sticks, with a slight notch in each ; they will thus be prevented from slipping sideways, and will draw more readily. The tails of most animals need starting at the base with a knife. Tails of the otter and skunk should be split down the under side, and tacked out flat on the stretcher. The feet are generally left on fox skins, and the fur side turned out when they are partially dry. The stretcher for mink and other large

skins should be in three pieces, to facilitate removal, as the skins contract and stick tightly.



The skins of several furred animals are removed differently from those described. Those of the bear, panther, wolf, wolverine, lynx, badger, beaver and skunk are skinned flatly, by cutting down the middle of the belly and the inside of the legs. Such skins are stretched and nailed on any flat surface. Very large skins, such as the buffalo, moose, caribou, elk and deer, are stretched on pegs driven through their sides in the ground. When pelts are stretched and dried, they should be made in bundles, placed in the top of the trapper's cabin, and allowed to remain until Spring. Early in the season a mixture of salt, saltpetre and alum is used for the largest skins.

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